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December 16, 1933

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In This Issue

Pennsylvania Builds 22 Subways in 1½ Miles of Line Page 843

A description of work on the elevation of the Englewood Connecting Railway
at Chicago which involved the construction of an unusual number of street
underpasses.

Pneumatic-Tired Rail Bus Tested 847

Tells of new type of equipment which is designed to help railways recover short-
haul freight and passenger traffic.

Transport Chaos Ended in Britain 853

George W. Alcock discusses recent legislative developments in that country
where trucks as well as buses are now regulated and finds that similar steps
here are essential to economic recovery.

EDITORIALS

Private Business and Prosperity	839
What Crews for Light Rail Cars?	841
A "Yardstick" for Government Enterprise	842
How Not to Do It	842

GENERAL ARTICLES

Pennsylvania Builds 22 Subways in 1½ Miles of Line	843
P.W.A. Loans Offered For Repairs and Equipment	846
Pneumatic-Tired Rail Bus Tested	847
Eastman Warns Roads on Labor Relations	849
Development Association Meets at Chicago	851
Transport Chaos Ended in Britain, by George W. Alcock	853
Freight Car Loading	856
Railroad Salesmanship Discussed, by S. O. Dunn	856
A Workable Plan for Car Pooling Can Be Developed, by Olin C. Castle	857
An Automatic End-of-Double-Track	859

NEW BOOKS 860

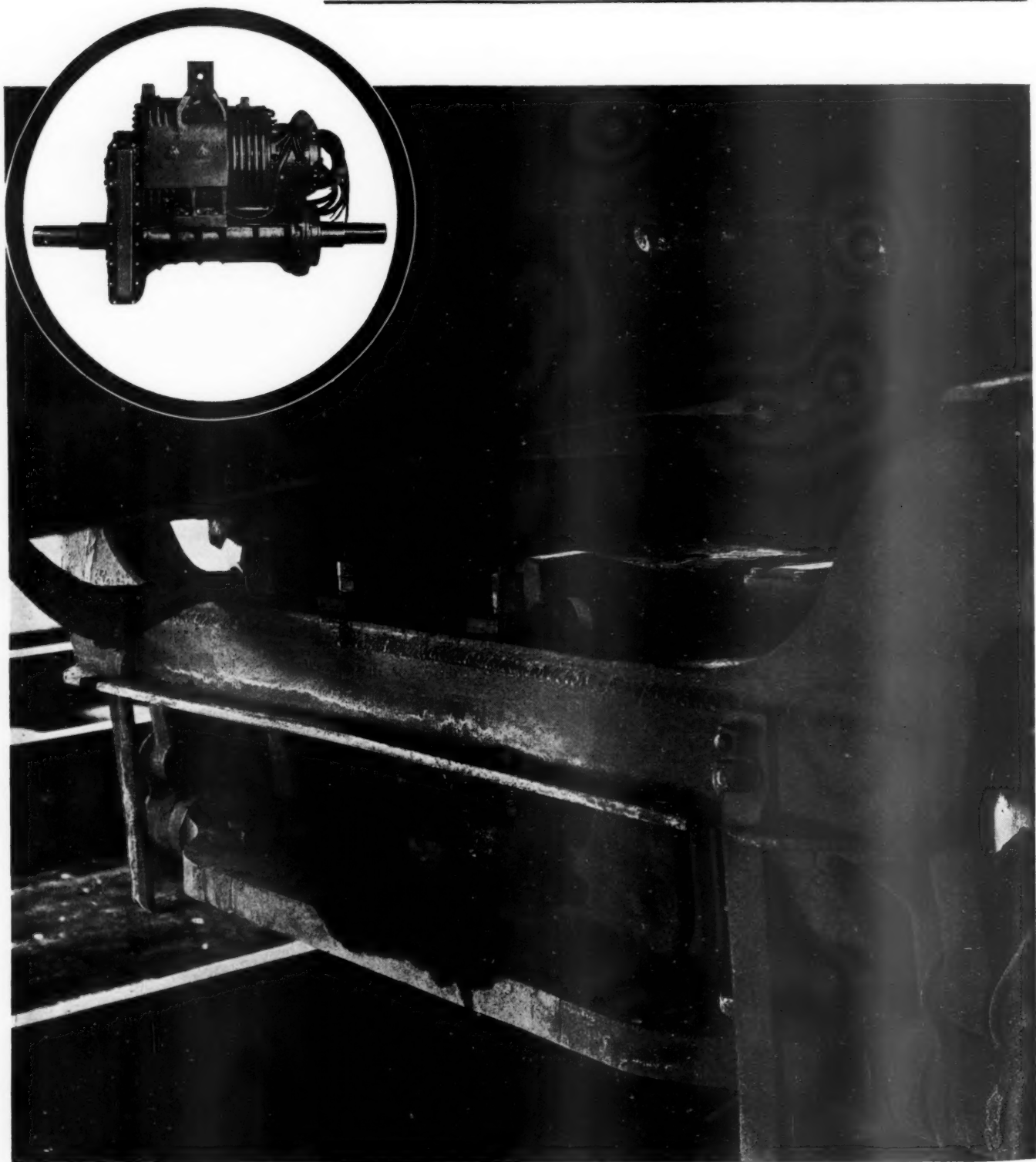
ODDS AND ENDS 860

NEWS 861

*The Railway Age is indexed by the Industrial Arts Index and also by the
Engineering Index Service*

PROVED IN

WESTINGHOUSE 15-KW.



Westinghouse 15-kw. gear-driven Axle Generator installed on car truck. This type of generator fits all 4 and 6-wheel trucks. (Inset) Note the compactness of the unit (top view).

RAILWAY AGE

Private Business and Prosperity

There is no solution of the great economic problem confronting the people of the United States that is not based upon a very large increase in production and commerce. The volume of production and commerce is now less than 60 per cent of what it was in the five years 1925-1929 inclusive. A general increase of prices, whether caused by inflation or otherwise, will not stimulate production and commerce. The principal changes in prices needed to stimulate business are increases in some of them exceeding increases in others which will restore the parity of purchasing power of different industries and classes of the people that has existed in past periods of prosperity. The national wealth and income are the result of solely physical production and commerce. An increase of employment that is not accompanied by an increase in production and commerce simply means a re-distribution of what is produced as a result of which an increase in what some get is completely offset by a reduction of what others get.

The reduction of production and commerce has occurred in private business. All that the government may do to increase employment by expenditures upon public works, and by paying farmers to reduce their production, will cause no perceptible increase in production and commerce excepting to the extent that it promotes the revival of private business. As long as there is no increase in total production and commerce, every dollar that the government spends is a dollar directly or indirectly taken from private business, and which cannot be spent by private business because the government has taken it and is spending it. If the government spends it for some purpose for which private business otherwise would have spent it, its taking and expenditure by the government obviously do no good. If the government spends it for some purpose for which private business would not have considered it desirable for private business to have spent it under present conditions, it is a practical certainty that its expenditure will do harm.

Loans to the Railways

The public works act authorized loans to the railroads, and up to the time this editorial was written there had been allotted by the Public Works Administration a total of almost \$177,000,000 for loans

to them. Among the contemplated uses of the money are \$84,000,000 by the Pennsylvania for completing its New York-Washington electrification and other miscellaneous items, including the purchase of 7,000 freight cars; \$51,000,000 by a large number of railroads for the purchase of rail and track fastenings; the purchase by four roads of 12,775 freight cars, 167 passenger cars and 30 locomotives, and the rebuilding of cars by other railroads.

There are some vital differences between other uses being made of government money and these loans to the railroads. The donations being made to farmers to induce them to reduce production are not to be returned to the public treasury. Of the advances being made by the federal government to other governments for public works, 30 per cent are outright gifts. The expenditures being made upon waterways and highways are permanent investments. No part of the principal or of the interest upon them are expected ever to find their way back into the public treasury. All of such advances and expenditures are being made at the cost of the taxpayers and will increase taxes.

On the other hand, the advances being made to the railways are strictly loans made under contracts which provide for the repayment of the principal and of interest at 4 per cent after the first year. Following the return of the railways to private operation in 1920 the government loaned them \$1,080,000,000 upon which interest was paid, and all of the principal of which, excepting less than \$40,000,000, has been repaid.

Production, Commerce and the National Income

The railways did not ask the government for the loans from the public works funds being allotted to them. Their offer and acceptance are based upon the belief that such co-operation between the government and the railways is desirable from the standpoints of both. The railroads are a private industry. They handle commerce, which makes production possible. It is the duty of their managements to keep them in as good condition as practicable, for that purpose, and to get from their earnings or from private investors, if possible, and if not, from the government, if reasonable terms can be secured, all the money the expenditure of which will help to put and keep railway properties in good serviceable condition. Their ex-

penditures help cause necessary production, commerce and employment.

It is the desire of the government that they shall increase their expenditures, and it is willing to make them loans for that purpose, because this will increase the employment given by them, and also increase production and employment in the plants of the manufacturers from which they buy equipment and supplies. The money the government is loaning and the railroads are accepting would sooner or later have to be spent by the railways for the same purpose anyway. Therefore, its early expenditure will contribute as much toward an increase in production, commerce and employment now as it would later, while this contribution to the increase of production, commerce and employment is more needed now than it would be later. From every standpoint the loans to the railways are justifiable as a means of helping revive private business, and thereby of helping revive the nation's prosperity.

There are two measures of a nation's prosperity at any given time. One is the physical volume of its production and commerce per capita. The other is the way in which the resulting national income is divided. At a time when production is 40 per cent less than four years ago, it would appear that the principal objective should be an increase of production, and of the national income directly and indirectly derived from it, but most of the recovery policies of the administration are aimed principally at securing changes in the distribution of the national income. Implicit in many statements emanating from the administrators of recovery is the assumption that redistribution of income is the essential objective because production cannot be greatly increased—that industry can now produce more than people will or can consume. Consequently hours of work must be reduced in order to divide productive work among more persons. General Johnson was quoted as having said in a recent speech that even if the production and commerce of the prosperous years ending with 1929 were restored there would still be, without reductions of hours of work, four million unemployed.

Old Depression Views Revived

Such views regarding the future of industry are not new. In writing of the depression that prevailed in European countries between 1872 and 1876, and in the United States from 1873 to 1878, Georges de Laveleye, editor of the *Moniteur des Interets Matériels* of Brussels said, in substance, "that the industrial activity of the last half-century has resulted in fully equipping the civilized countries of the world with economic tools, and the work of the future must necessarily be repairs and replacement, rather than new construction." M. Piermez, a prominent Belgian banker, in writing of the same period said, "It is not likely that there will be again an economic progress comparable to that by which this century has changed the face of the whole world." Carroll D. Wright, United States Commissioner of Labor, called attention in one of his

reports to what he regarded as some highly significant facts. They included the construction of the Suez Canal; transformation of the merchant marine from wood to iron; harbors and rivers that "had been sufficiently developed;" the construction of railroads in England, Belgium, France, Italy, Spain, Russia, Germany, Austria, Turkey and the United States. He added, "What is strictly necessary has been done oftentimes to superfluity, but it will not leave room for a marked extension, such as has been witnessed during the last fifty years. * * * The day of large profits is past. There may be room for further intensive but not extensive development of industries in the present era of civilization." The report in which these statements were made appeared in 1886. Between 1890, four years after Mr. Wright wrote his report, and 1929, the number of tons of freight carried one mile by the railways of the United States increased from 76 billion to 450 billion, or almost 500 per cent. These figures indicate that the increase of production and commerce in the United States during the thirty-nine years ending with 1929 was six times as great as during the fifty years during which, in Mr. Wright's opinion, there had been a development of industry that would "not leave room for a marked extension."

It does not seem reasonable at present to assume that increases of production and commerce will be as great in future as they have been in the past. In view of the industrial history of the last one hundred years and of existing conditions, however, it is a preposterous exhibition of ignorance and lack of foresight to imply that the observance of sound economic principles by government and business will not cause future increases of production, commerce and the national income which will make the production, commerce and national income of recent years of prosperity seem small.

Private Initiative and National Income

Even in 1929 average income per capita in this country was only about \$750. It will be just as possible to double, treble or quadruple it in the future as it was in the past. In order to do so, however, it will be necessary to learn from experience as well as from experimentation. The *Railway Age* does not agree with Alfred E. Smith in preferring experience to experimentation, but it does believe that experimentation which disregards experience is both dangerous and stupid. Now, it is certainly true that experience in all countries which have grown rich, and especially in this country, indicates that the encouragement by the government of private initiative and enterprise is far more likely to help increase production, commerce and incomes than government hampering and discouragement of private initiative and enterprise. It is said that conditions are different now from what they ever were before. This statement, like pessimistic predictions, has been made by prominent persons during every industrial depression that has ever occurred. It is only partly true now, and no more true than in the past.

Every government measure adopted now which

burdens and hampers initiative and enterprise in private business will interfere with the restoration of prosperity and its advance to new heights. Every government measure adopted now which reduces the burdens upon private business and helps business men to use their initiative and enterprise in legitimate ways, will help to restore prosperity and to advance it to new heights. It is quite true that much bad judgment and crookedness in private business have been exposed, but it is equally true that much bad judgment and crookedness in government have been exposed. In spite of all the bad judgment and crookedness in business that have been exposed, it still remains a fact that prosperity can be restored only by reviving private business, and that for the revival of private business the nation must depend principally on its millions of business men, large and small, simply because they have almost a monopoly of its real business brains, initiative and enterprise.

What Crews for Light Rail-Cars?

Just now, the light rail motor car, capable of handling a few passengers and a small amount of head-end traffic, is attracting widespread attention. There is a fairly general feeling that such cars, operated on frequent schedules, may be the answer to automobile, motor cars have, they have that of economy. While lines and some secondary main lines. There is much current activity in connection with the construction of such equipment, one road having already placed in service two motor buses re-equipped for rail service and others having purchased or undertaken experimental operation of cars of this type recently placed on the market.

Whatever other virtues these small-capacity rail motor cars have, they have that of economy. While capable of carrying only limited numbers of passengers and relatively small amounts of mail, baggage, express and package freight traffic, they are quite inexpensive to operate. Eliminating the labor charge from consideration, it appears more than likely that such cars can be operated at a cost less than that incurred in the operation of equipment of equal capacity over the highways.

Actually, however, the labor charge cannot be eliminated from consideration. It is in this particular account that the advantage of light rail equipment over highway equipment can be made certain or completely dissipated. Motor buses and motor trucks, competitive with light rail-cars, are operated by one man whose wages, even under the N. R. A. codes, are nothing to make railway train and engine service employees envious. If light rail-cars could be operated similarly manned—even at existing rates of pay for train and engine service employees—there would probably be little doubt of the advantage of the rail equipment over

the highway vehicles with respect to operating cost. It happens, however, that the dictates of labor agreements call for a crew of at least two men on light rail-cars and perhaps even three or more. Possibly the rail-cars can afford to carry two-man crews and still not be hopelessly handicapped, from the standpoint of operating cost, in competition with highway vehicles. To put crews of three men on light cars having no greater capacity than that of motor buses and medium-sized motor trucks is little short of suicidal. There can be no question that, from a dollars and cents standpoint, it would be better to operate passenger and freight equipment over the highways, paying even the highest fees for the privilege of highway use, than to operate equipment of similar capacity on the rails with three times as many employees in charge of it.

In putting two light rail-cars in service, each with two-man crews, one railroad recently created jobs for nine train and engine service employees. Common sense would appear to dictate an attitude of gratification among the affected employees and their organizations at the creation of these nine new jobs. Common sense would appear to dictate that these employees and their organizations should do everything in their power to insure continuation of the new jobs, and nothing to prejudice them. But common sense, apparently, has not prevailed because the labor organizations, in apparent disregard for other considerations, are insisting upon three-man crews for these light cars. There is no need for three men on these cars and the cars cannot afford to be saddled with such a heavy labor charge, but the labor organizations are making an issue of the proposal for three-man crews at a time when it is very questionable whether the railway can afford to operate the cars even with two men.

What shall constitute a crew for light rail motor cars is a serious problem which may make or break this new type of equipment in railway service. A reasonable attitude on the part of train and engine service employee organizations is urgently needed. The employee as well as the railway suffers when railway equipment, in competition with highway carriers, is handicapped by an unnecessarily high labor expense. If one or two men can handle these light rail-cars satisfactorily, then it is of as great advantage to the employee as to the railway that equipment should be operated with no more elaborate man-power.

In most cases, such cars will provide additional service, not replace train service already in existence. Thus, a few new jobs will be created, and a few jobs for train and engine service employees are better than none. Furthermore, if the light cars are a success, they should make a place for many additional train employees and perhaps do more than anything else to effect a return of traffic to the rails and a consequent return of train and engine service employees to railway jobs. The light rail motor car has considerable promise, over a period of time, of removing many locomotive engineers, firemen, conductors and trainmen from the ranks of the unemployed. Whether this promise will be fulfilled

depends, in large measure, upon the foresight and reasonableness of the employees and their organizations at this time when light rail motor car equipment is making its entry into the railway transportation field.

A "Yardstick" for Government Enterprise

The consumers of Muscle Shoals power must pay all the costs. In short, the power program of the Authority is not to be subsidized by the taxpayer. And in the second place, to carry out the President's plan for a "yardstick," all costs of a comparable privately owned company were considered, as accurately as possible. This included direct operating expenses and administrative overheads, interest, depreciation and taxes. In addition to costs we planned a program of retiring our fixed capital out of revenues so that in a period of years fixed charges would be reduced and rates could be made even lower. Suffice it to say that a careful effort was made to consider all items of expense of comparable private companies and to treat the entire project as a self-supporting project and not as a taxpayer subsidy.

The above is an excerpt from a recent address by David Lilienthal, director and general counsel of the Tennessee Valley Authority, which was quoted by Thomas F. Woodlock in a recent article in the Wall Street Journal. If it truly expresses the government policy with regard to government competition with private power companies, then all we can say is—speed the day when a similar policy may be applied with respect to government competition with private enterprise in transportation.

Applying Mr. Lilienthal's views as outlined above to the government's transportation enterprises would require the Federal Barge Line to charge not only adequate depreciation but also interest and the equivalent of taxation on the investment in floating equipment, plus prorated capital charges and the equivalent of taxes on the investment in waterways used by the barge line. Capital charges and the equivalent of taxes on waterways would have to be similarly prorated and added to the operating costs of private barge lines.

Applying the "yardstick" to highway transportation would require that its books be set up to show not only operating costs of vehicles and meager contributions to highway expenses as they do at present, but also to include that part of highway costs it does not now bear, plus the equivalent of taxation on that part of highway investment devoted to commercial use.

The "yardstick" would likewise accomplish wonders if it caused to be included in the showing of total costs of coastwise and intercoastal water lines the services they now enjoy at the expense of the taxpayers, including non-compensatory tolls for use of the Panama canal. The measuring instrument might, to the profit of the public intelligence, also be laid on air transport, to make the figures of air lines comparable with transportation which operates without governmental aid.

We welcome the concept of the yardstick, therefore, because its just use would clear the air of most of the

controversy now raging about industrial competition wherein government funds are a factor. What the yardstick would do, however, if laid on the St. Lawrence Seaway or the navigation of the Missouri and Upper Mississippi is another matter, because no such diminutive measure could serve to gage the spread in total costs of transportation on such projects with those of parallel railways. Mr. Lilienthal has done a brave thing by turning the spotlight on the keystone of the "public works" structure. We hesitate to think what must be the opinion of such eminent economists as General T. Q. Ashburn, and Chief MacDonald of the Bureau of Public Roads of such heresy from one on the government payroll.

How Not to Do It

The one formidable obstacle to a large-scale program for the separation of railway-highway grade crossings is that of providing the money. It should follow, therefore, that whatever money is made available should not be dissipated by unnecessary or excessive expenditures on individual projects. Yet this is exactly what was done in the track elevation project on the Englewood Connecting Railway at Chicago, in which, as described on another page of this issue, the Pennsylvania was compelled to provide undercrossings for 22 streets in a distance of 1½ miles, when according to the principles of modern city planning no more than half that number could be justified.

The plan for this project, imposed on the railroad by the city, follows the precedent established more than 40 years ago, in spite of the fact that the character of street traffic and ideas of street utilization have changed drastically since that time. Experience with high-speed vehicles on city streets has demonstrated that traffic movement is expedited and the hazard of accidents is minimized if certain streets are set apart for protected, high-speed movements, while the others are relegated to the service of providing the necessary access to the property fronting on them. In a residence district the local traffic is normally light, and if adequate provision has been made for arterial streets, no valid objection can be raised to the closing off of a certain proportion of the local streets at a railroad embankment or cut constructed in connection with a grade separation project, if over or undercrossings are introduced at sufficiently frequent intervals to provide reasonably direct access to schools, churches and local business centers, and to avoid circuitous routes for police cars and fire apparatus.

In the light of the change that has taken place in the functions served by city streets, there can be no justification for imposing the heavy expenditure for the construction of underpasses at all streets in a territory occupied largely by small homes, as was done in the work on the Englewood Connecting Railway.

A View of the Grading Operations
West from Ashland Avenue



Pennsylvania Builds 22 Subways in 1½ Miles of Line

Elevation of Englewood Connecting Railway at Chicago involves
construction of an unusual number of
street underpasses

TWENTY-TWO underpasses or subways spaced an average distance of 380 ft. apart comprise the primary feature of a grade separation project now being completed by the Pennsylvania in Chicago. The line involved traverses a residential neighborhood of small homes where all of the closely spaced streets except a few main thoroughfares carry only local traffic. But precedent established in the early days of track elevation in Chicago prevailed, and the railway was required to provide a structure over every street, resulting in an expenditure of \$1,000,000 for grade separation over a line distance of 1.5 miles, although a minimum of retaining walls was required and the project involved no unusual construction difficulties.

The railway property involved is the Englewood Connecting Railway, an east and west line 2.6 miles long lying half way between Fifty-eighth and Fifty-ninth streets, Chicago, which serves as a connection between the "Fort Wayne" and "Panhandle" lines of the Pennsylvania. These two lines, which were built into Chicago as independent properties, namely the Pittsburgh, Fort Wayne & Chicago, and the Pittsburgh, Cincinnati, Chicago & St. Louis, originally had physical connection only at the Union station, but with the need of a closer co-ordination of operations following acquisition of control by the Pennsylvania Company, this connection proved inadequate, and the second connection, 6½ miles south of the Union station, was built in 1885, and has since been employed as a short cut in the handling of local pick up and delivery, and transfer movements for interchange with other railways, etc. It also serves a number of industries adjacent to the right of way—principally light manufacturing plants and building-supply and retail coal yards.

Part of Line Elevated in 1902

Owing to the slow speed of movements over this line, it was left out of consideration in the early stages of

the program of grade separation in Chicago, which had its inception during the nineties. But when the Pennsylvania was required to elevate its Fort Wayne line and a similar project was undertaken on the Chicago & Western Indiana, two blocks to the west, in 1902, it was necessary to elevate that portion of the Englewood line lying between them, and owing to the importance of Halsted street as a through traffic thoroughfare, the work on the Englewood line was extended across that street, with subways at Stewart avenue, Normal boulevard, Wallace street, Lowe avenue, Union avenue, Emerald avenue and Halsted street, beyond which a runoff was provided which reached the original grade at Morgan street. A pile trestle was provided at Peoria street to accommodate pedestrian traffic, and Green street was closed by the presence of the runoff embankment, but the remaining streets from Peoria street west to and including Damen avenue crossed the line at grade.

Since the completion of this earlier project, track elevation work proceeded on an extensive scale on main



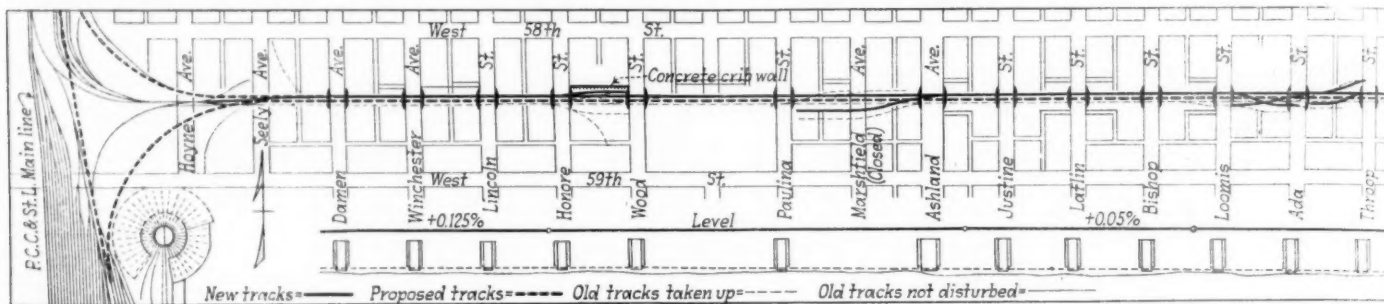
Looking West on the New Line from Halsted Street. The Run-off for the Temporary Line Is Shown at the Left

lines all over the city, and with the completion of these projects the city turned its attention to the lines of slow-speed traffic with a view to the eventual elimination of all grade crossings in the city. This policy was responsible for the passage of a contract ordinance covering the elevation of the Englewood line from Halsted street to a connection with the Panhandle line west of Damen avenue.

On this part of the line 20 streets crossed the track at grade, and the track elevation program called for the construction of subways at all these intersections, in addition to those at Green and Peoria streets. These subways are designed to accommodate two tracks, but the embankment has been built to carry only one track,

cars by means of a 2-cu. yd. clamshell bucket handled by a locomotive crane, 100,000 cu. yd. of the embankment being placed by this method under contract by Colianni & Dire, Chicago. The remaining 30,000 cu. yd. of the embankment, which consisted of cinders, was placed directly by motor trucks, under contract by a local coal company. The filling material unloaded by the locomotive crane was furnished by the railroad from various points on its lines.

For practically the entire length of the line the width of the railroad right of way was sufficient to permit the construction of the embankment without confining it within retaining walls. Exceptions to this rule were encountered at two locations where the proximity to the



Plan and Profile of the Western Portion of the Englewood Connecting Railway

provision for the second (south) track having been deferred until necessity for a second track is indicated.

The underpasses were constructed with clearance heights ranging from 12 to 14 ft., while the elevation of the track above the original grade line varies from 16 to 20 ft. At only two of the subways was it necessary to depress the street grade line below the natural ground line in order to obtain the desired headroom, and in these two cases the depression did not exceed 3 ft.

Method of Placing Embankment

The elevation of this line required the placing of 130,000 cu. yd. of fill material, of which the major part consisted of cinders. In selecting a method for making the fill, the idea of dumping from a filling trestle was considered, but the cost of such a trestle so far exceeded the economies to be realized in unloading, compared with other methods, that this plan was discarded. The plan adopted, therefore, was to unload filling material from

track of the property of two industries required the construction of two lengths of concrete retaining wall on the north side of the track, neither of which is more than 135 ft. long. Neither was it necessary to purchase additional property because of the increased width of the railroad facilities, except at several locations where the railroad was required to provide outlet alleys along the embankment to intersecting streets.

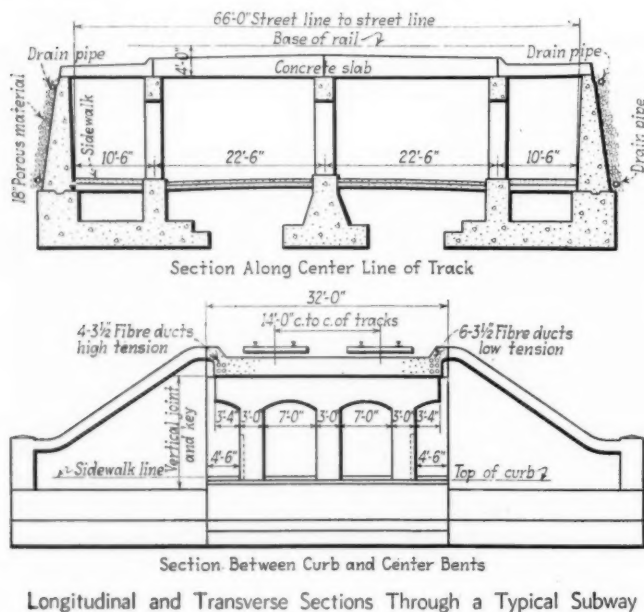
By shifting the existing track south to within nine feet of the south right-of-way line it was possible to carry on the construction of the embankment and the subways without interrupting service over the line. To avoid interference with the operated track, however, it was necessary to delay construction of the south wing walls of all the subways until the grading had proceeded to a stage that made it possible to transfer traffic to the elevated line and to take up the surface track. This has now been done, and work on these wing walls is under way.

To prevent the new embankment from fouling the operated line it was necessary to construct a four-foot crib wall of old ties throughout practically the entire length of the project. Temporary crib walls of old ties were also constructed to function as south wing walls of the subway structures.

The embankment was constructed to its full height in one lift by dump trucks, and a locomotive crane operating from the final grade elevation. A bull dozer was used to spread the cinders as they were dumped by trucks. The locomotive crane operating from a track laid on the embankment previously built at Halsted street, unloaded material from cars spotted on the low line by a work train provided by the railroad. As the crane completed the fill directly ahead of it, the track on the embankment was extended to permit the crane to move forward.

Work Commenced at East End

The application of this method to the building of the embankment required that the work of constructing the subways and making the fill be carried out progressively from one end of the project to the other. Since these



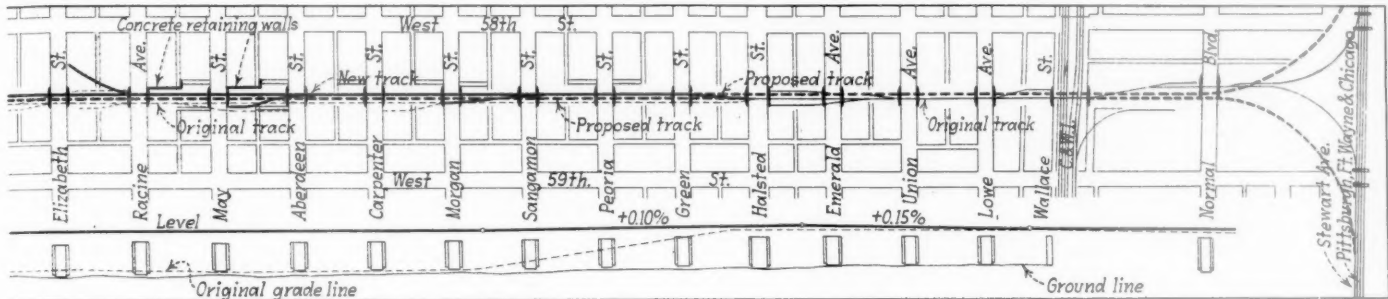
Longitudinal and Transverse Sections Through a Typical Subway

operations were carried on concurrently it was necessary to complete the subways ahead of the grading to permit filling material to be placed against the backs of the abutments. Moreover, the crane had to build the line up to the final grade as it moved forward in order to permit the elevated track to be laid across the subway structures from one block to the next. Under these conditions it was decided to commence the work at the east end where the line was already elevated as far west as Halsted street.

In commencing the work at this point, the first step was to shift the run-off to the south, to provide space for the grading and the construction of the subways. To do this required the construction of temporary pile

the street and the center bent, with its center line about 5 ft. below the surface of the street, necessitated unusual measures to secure a sound foundation for the bent and at the same time protect the sewer pipe. In the footing that was designed to meet this condition, steel I-beams, encased in concrete, span between two separate sub-footings extending parallel with and on each side of the sewer, thereby effectively protecting it from vertical or lateral pressure.

The curb and center bents of the subways each consist of three columns spaced 10 ft. center to center. The reinforced concrete caps of the bents, which are the same width as the columns, are arched between columns and overhang the outside columns a distance



Plan and Profile of the Eastern Portion of the Englewood Connecting Railway

trestles to carry the line over Green street, which previously had been closed, and also over Peoria street. The presence of trestles at these streets permitted them to be opened to traffic immediately following the completion of the subways at these locations.

The maintenance of service to industries during construction imposed no problem with respect to those located south of the right of way and adjacent to the operated track on the surface. But provision had to be made, also, for those north of the right of way, which were shut off from the surface track by the construction of the embankment. With this in view, an elevated siding to each industry was constructed ahead of the embankment and connected to the elevated line when the embankment reached it. The elevated connections to industries thus built consisted in most cases of steel beams carried on concrete piers.

Twenty Subways of Same Design and Dimensions

At 20 of the 22 streets, the subway structures are of the same design and dimensions, and no attempt was made to vary the architectural treatment in any way. At all these locations the streets are 66 ft. wide, and as the city permitted the use of columns in the centers of the streets as well as at the curb lines, reinforced concrete slab spans proved thoroughly practical for all but two of the subways. The design, therefore, consists of four spans of reinforced concrete slabs supported on reinforced concrete abutments, and three lines of reinforced concrete bents. The concrete slabs are designed as simple spans with butt joints over the bents.

All footings for the abutments and column bents of the subways are designed for a bearing pressure of 4,000 lb. per sq. ft. on a clay soil at a depth of from six to eight feet below the surface of the ground. In order to provide for the eccentric loading resulting from lateral earth pressure against the abutment walls, their footings are constructed integrally with those of the curb bents.

The footings of the center bents are of conventional design, except for the structure at Ashland avenue where the presence of a 54-in. sewer under the center line of

of 3 ft. 4 in. The deck slabs of the subways are further cantilevered a distance of 1 ft. 2 in. beyond the ends of the caps. Thus the darkening effect of the concrete columns has been minimized by reducing the number of columns and the length of the bents to a minimum. In addition the combined effect of straight lines in the slabs and copings and the square massive columns with their spanning arches gives the impression of stability and strength.

The reinforced concrete slabs of the subways are of standard Pennsylvania design. They are waterproofed with three-ply saturated duck, protected by asphalt planks. The backs of the wing walls and abutments were given two coatings of emulsified asphalt and are also backed by 18-in. of porous material to facilitate drainage. Each abutment is drained by a system of six-inch perforated Armco corrugated pipe, including two horizontal lines of pipe, one along the base of the wall and another at the top, connected with each other



A View of the Subway at Racine Avenue, Looking South



The Subway at Loomis Boulevard Was the Only One Where a Center Bent Was Not Provided

by a header at each end of the upper pipe. Drainage water is carried through the lower line into the city sewerage system.

Exceptions to the slab design of superstructure are provided at the Ashland Avenue and Loomis Boulevard subways, where the spans consist of CB-section beams encased in concrete. This deviation was made necessary at Ashland avenue because of the greater width of the street, 100 ft. between property lines, requiring two street spans of 36½ ft., while at Loomis boulevard the center bent was omitted, thus requiring a single street span of 45 ft. 3 in. Otherwise the design and architectural treatment of the structures at these locations were the same as elsewhere.

The contract for constructing the subways was held by the Underground Construction Company, Chicago, which commenced work on its contract in July, 1931, and completed it on December 1 of the same year. The elevated line was opened for service on February 3, 1932. Since that time the low level tracks have been removed, thereby making it possible to proceed with the completion of the south wing walls of the subways, and the grading and paving of the streets. While the work of elevating the connecting line will be completed with the construction of the south wing walls of the subways and other work now in progress, it is planned eventually to widen the embankment to accommodate a second track and to relocate the wye connections with the main lines at each end to reduce the curvature from a maximum of 21 deg. to 8 deg. 30 min.

This project was carried out under the direct supervision of I. W. Geer, chief engineer of the Western region of the Pennsylvania, while E. Weideman, engineer of bridges and buildings, supervised the design of the subway structures.

P.W.A. Loans Offered For Repairs and Equipment

WASHINGTON, D. C.

PW.A. allotments of \$36,307,500 for loans to four railroads for the purchase of 30 new locomotives, 12,775 freight cars and 167 passenger cars were announced on December 9 by Public Works Administrator Harold L. Ickes, following allotments totaling \$5,500,000 on December 7 to two railroads that will enable them to put 2,700 men to work in their shops at repairing and rebuilding cars and other equipment. These brought the total allotments for railroad loans up to \$176,807,500, including the \$84,000,000 for the Pennsylvania and \$51,000,000 for rails and fastenings announced on November 2, but all are subject to the requisite approval of the Interstate Commerce Commission and consummation within a "reasonably short time" of contracts satisfactory to the P.W.A. and the railroads as to which negotiations have been in progress for some time. Administrator Ickes stated on December 7 that in the case of the Pennsylvania loan a "dead-line" had been set for December 15, ten days after a conference between the railroad and P.W.A. officials held last week. He said that the company "could make up its mind just as well in ten days as in ten months" but other P.W.A. officials have stated that the principal cause for the delay was the time required for the readjustment of hundreds of contracts previously entered into in connection with the electrification work to comply with the labor require-

ments of the industrial recovery act. On Thursday negotiations on the Pennsylvania loan contract were still in progress but it was understood they were proceeding with favorable prospects for an early conclusion.

The allotments of \$18,065,000 to the Chesapeake & Ohio, \$11,964,000 to the Erie, \$5,028,500 to the New York, Chicago & St. Louis, and \$1,252,000 to the Northern Pacific were the first to be made solely for equipment purchases, although that for the Pennsylvania also includes equipment. The allotments of \$3,500,000 to the New York, New Haven & Hartford and of \$2,000,000 to the Lehigh Valley were the first to be made to railroads for the reconditioning of equipment. The managements of a number of other important lines are negotiating for substantial advances for equipment reconditioning loans. No loans have actually been made as yet for the purchase of rails, although four have reached the stage of application to the Interstate Commerce Commission and several railroads have placed their orders for rails without borrowing from the government. The form of contract proposed by the P.W.A. legal department governing the terms on which the loans are to be made is still in a tentative stage and has not yet been approved.

The P.W.A. declined to make public the number of cars and locomotives to be bought by each road, but the Erie's application to the Interstate Commerce Commission, made public on Monday, listed 2500 fifty-ton self-clearing hopper cars, 500 forty-ton plain box cars, 100 fifty-foot furniture cars, 125 fifty-foot 70-ton flat cars, at an estimated cost of \$9,057,250 for freight equipment, and 50 semi-through passenger coaches, 75 suburban passenger coaches, and 8 steel mail cars, at an estimated total for passenger equipment of \$2,788,500, a total of \$11,845,750. The Erie application stated that its application to the P.W.A. contemplated that the government would take equipment trust certificates on the Philadelphia plan for the full amount.

It was estimated that the \$11,964,000 loan to the Erie will create 1,613,500 man-hours of employment in the equipment manufacturing plants alone. This estimate does not include the indirect and industrial employment that will be created in plants fabricating materials to be used in the manufacturing plants. Materials will originate in 20 states. Actual labor costs in fabricating and assembling the equipment will be about \$8,375,000.

About \$12,645,500 out of the \$18,065,000 allotted to the Chesapeake & Ohio will be paid out for labor, and about \$5,419,500 will be spent for materials originating in 20 states. Estimates of the number of man-hours of direct, indirect and industrial employment to be created by this allotment have not been completed. Expenditures for labor will take about \$3,520,000 of the \$5,028,500 loan to the Nickel Plate, and the balance will be spent for materials originating in 20 states.

The \$1,250,000 loan to the Northern Pacific is estimated to provide approximately 300,000 man-hours of direct employment in locomotive manufacturing plants and at least twice as much indirect and industrial employment in producing the materials to be used. Practically every dollar of the money allotted for these four loans will go to create employment in 1934. The Northern Pacific has received bids on the equipment that it will buy. The Erie and Nickel Plate already have requested competitive bids on the equipment they intend to buy, and the Chesapeake & Ohio will ask for bids on its equipment.

The loans will be secured by equipment trust notes bearing 4 per cent interest and maturing in 15 years, with semi-annual amortization. No interest will be charged
(Continued on page 852)



Typical Fairbanks-Morse Railmobile and Freight Trailer

Pneumatic-Tired Rail Bus Tested

New type of equipment is designed to help railways recover short-haul freight and passenger traffic

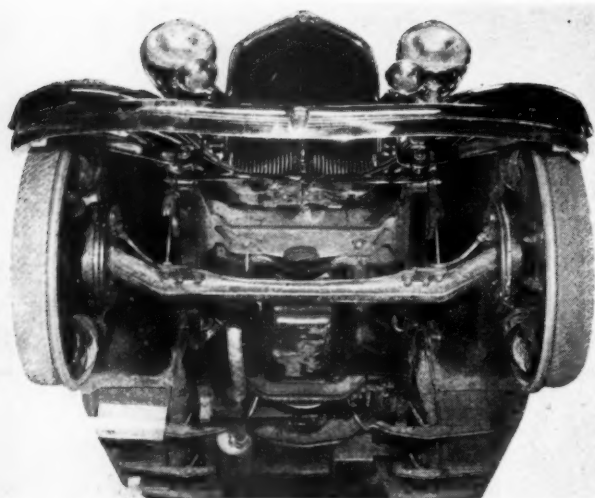
AN innovation in railway equipment which is expected to help substantially in solving the problem of reduced branch-line business was demonstrated in Chicago recently, when a pneumatic-tired rail bus, carrying 14 passengers and hauling a trailer with a capacity for two tons of general freight, made a number of successful trial runs on the tracks of the Chicago & North Western. This two-car train, known as a Railmobile, is the first of a line of passenger and freight vehicles produced by Fairbanks, Morse & Company in conjunction with the Goodyear Tire & Rubber Company and the Chrysler Corporation. It represents the extensive pooled experience of these three companies and is a thoroughly engineered attempt to adapt automotive-type equipment to the requirements of railway service. The equipment is designed to provide rapid acceleration and braking, attain speeds up to 70 m.p.h., and operate at a fuel cost of only about four cents a mile, exclusive of the trailer. With due provision for safety and reliability of operation, as well as adaptability to widely-varying traffic requirements, this new equipment has been developed as one effective means by which railways may regain some of the business lost to bus and motor truck competitors operating on the public highways.

Relatively low initial cost of the equipment is assured by utilizing for the most part automotive unit assemblies already in quantity production and supplemented only by such parts as special axles, steel wheel centers and flanges furnished by Fairbanks-Morse, Goodyear pneumatic tires, hydraulic braking system, etc., needed to adapt the equipment to rail service. The line of Railmobiles as produced by the three participating companies and distributed by Fairbanks, Morse & Company will embrace both chassis and standard bodies of all Plym-

outh, De Soto and Chrysler passenger-car models, these cars, intended largely for inspection purposes, being equipped with self-contained pneumatic elevating and swiveling devices to permit reversing the cars whenever desired and at any point on a single-track line. Railmobiles consisting of standard Dodge truck chassis will be furnished with freight or passenger bodies to specifications. Trailers in both freight and passenger types will also be furnished with bodies in accordance with specifications.

The Railmobile, illustrated, consists of a 14-seat passenger body, mounted on a standard 1½-ton Dodge chassis and driven by a 65-hp. 6-cylinder gasoline engine through the standard Dodge mechanical transmission. The car, which also carries a baggage compartment in the rear of the passenger section, weighs about 9,300 lb. and has a total wheel base, including the two front wheels and four rear driving wheels, of 151 in. The car interior is attractively decorated and fitted with comfortable bucket-type seats. Adequate light is furnished from the car battery and indirect heat from the engine exhaust. Safety glass is provided in all windows.

The trailer, illustrated, weighs 4,300 lb. and can be designed to meet the requirements of the individual railways. Like the Railmobile passenger unit, it is of rugged steel construction and equipped with pneumatic tires and steel wheel centers and flanges. Both cars are braked by internal expanding vacuum-type hydraulic brakes applied on all wheels. A booster cylinder, installed on the power unit, gives the required vacuum air pressures, which are transmitted through a flexible connection to the trailer. A light conduit with suitable flexible plug connection is also used to furnish electric light in the trailer when needed. In cases where an unusually large power unit or trailer is required to meet



Underneath View of Railmobile Inspection Car Showing the Specially Designed Fairbanks-Morse Front-Axle Assembly

the needs of the service, the Railmobile can be built on a 2-ton chassis, driven by a 96-hp. engine.

Special Axles of Fairbanks-Morse Design

One of the important contributions of Fairbanks, Morse & Company in the development of this line of rail cars was in the provision of a substantially strengthened and unusually rigid one-piece special front axle having large integral spindles, designed to hold the wheels in a vertical position without the usual camber, which is unnecessary and, in fact, detrimental for this class of service. The wheel bearings, rear axles, driving shaft, transmission, clutch and brakes are made of ample capacity, as the rotating weight of the rail tire and its wheel necessarily is greater than that regularly furnished for standard automotive vehicles.

The material used in the wheels is heat-treated electric-furnace alloy cast steel, which is exceptionally strong and provides a hard, long-wearing surface on the guide flanges. The wheels, of scientifically designed section, are ribbed strongly to give the required strength and rigidity. These characteristics, coupled with long-wearing flanges, are designed to make the wheels superior to a pressed-steel wheel of lighter section. The wheels are demountable at the hub, and so designed that the standard wheel is interchangeable at any point on the car; the hubs only differing for the front and the rear



Goodyear Tire Ready for Application to the Special Steel Wheel and Flange of a Railmobile Inspection Car

axles. Machining and balance were given particular attention to insure satisfactory running qualities at high speeds.

The hubs of those wheels which rotate on the axles are designed to take large size bearings, and the bearings are located with reference to the load line of the tire on the rail for best results. The hubs are made from electric-furnace cast iron with brake drums cast integral. This is said to provide one of the most effective brake drum materials for efficient frictional surface and the dissipation of heat. It also does away with the necessity of attaching a separate brake drum. At present, wheels are available for 17-in., 20-in. and 24-in. sizes. Corresponding tire sizes are 28 by 5½, 31 by 5½ and 35 by 5½. Thus, a range of sizes suitable for many cars is available.

Goodyear Pneumatic Tires Prove Safe in Blow-Out Test

The rubber tires used on this equipment consist of the Goodyear-Michelin design, which was illustrated and



Interior View Showing the Decorative Treatment and the Seating Arrangement

described on page 671 of the *Railway Age* of November 12, 1932. The casing of this tire is of conventional construction but built of special materials to assure long life and support an air pressure of 100 lb. per sq. in. The tread is flat, with a special angular rib design to assist in driving water and snow from the rails, thus giving better traction and braking. A special kidney-shaped tube and flap fit around the sectional, heat-treated aluminum-alloy safety ring which is securely fastened to the wheel rim. This safety ring performs the double function of allowing the car to drop only ⅝ in. in case of a deflated tire and at the same time, being made of aluminum, it serves as an excellent heat-radiating medium and actually reduces the tire temperature, which in turn increases the life and carrying capacity materially. The safety ring, being made of heat-treated aluminum with a high load capacity and a correspondingly high factor of safety, is much smaller in cross section than would be necessary with other materials such as rubber or wood, hence avoiding an excessive

reduction in air space within the tire. The rim is easily demountable from the wheel so that a spare tire and rim may be quickly installed.

In recent tests before railroad officers, the safety feature of Goodyear-Michelin tires was repeatedly demonstrated by means of the "shot-gun" test. In this test, a Railmobile was simply equipped with an ordinary 12-gage shot gun strapped to an outboard bracket attached to the running board and pointed at the right front tire. When a speed of 70 m.p.h. was reached, the gun was discharged and a large hole instantaneously made in the tire. The wheel dropped only $\frac{5}{8}$ in. to the safety rim and the car was easily brought to a stop without shocks or disturbance to the passengers. In addition to the safety feature, the pneumatic tires are designed to absorb shock and vibration and allow the use of lighter weight and oftentimes more economical car construction, also providing unusually quiet operation and thereby contributing to passenger comfort.

The first Fairbanks-Morse Railmobile, sold to the Escanaba & Lake Superior, was built to the specifications of this road and will carry passengers, baggage and mail. It is intended for operation between Escanaba, Mich., and Channing.

Eastman Warns Roads On Labor Relations

WASHINGTON, D. C.

ASSERTING that there are still a considerable number of railroads not complying, as to certain classes of employees, with the provisions of the Emergency Transportation Act requiring them to "keep their hands off" of employee organizations, Co-ordinator Eastman has addressed a statement to the Regional Co-ordinating Committees to bring the matter again to the attention of the carriers "in the hope that voluntary action will be taken by all of the carriers, as it already has been taken by some," which will make "resort to legal procedure" unnecessary.

If the railroads fail to act voluntarily, he says, "I shall have no alternative under the law except to see to it, to the best of my ability, that its provisions are enforced, and this I shall do. But there is no good reason why this should be necessary."

The statement says that it is argued by some railroads that the language used in the act is ineffective for the purpose intended, but that "for present purposes it is sufficient to say that the intent of Section 7 (e) is clear and that I am convinced that the intent was accomplished."

In a communication of September 7 to the railroads Mr. Eastman stated that it was his duty to see to it, as far as possible, that all provisions of the Emergency Act are enforced, including the provisions of Section 7 (e). He also sent them a questionnaire designed to develop the facts with respect to compliance with Section 7 (e), and said that as a further check he expected, through his staff, to investigate typical situations on the ground.

The answers to the questionnaire have now been received and analyzed, he says and certain other investigations have been made. Most of the railroads comply with the letter and spirit of the law with respect to some classes of their employees, and some railroads so comply with respect to all classes. There are a con-

siderable number, however, which do not comply with respect to certain classes of employees, these classes often differing with the different railroads. Among the things which are being or have been done by various railroads, and which he believes now to be prohibited by Section 7 (e) are the following:

(1) Carrier officers have participated in or supervised, directly or indirectly, the formation of, and carrier managements have retained a measure of control over, constitutions, by-laws and other governing rules of organizations of their employees.

(2) Carrier officers have supervised, or taken part in prescribing, the rules governing nominations and elections or other methods of choice of the representatives, committees and officers of such organizations.

(3) Carrier officers have participated and continue to participate in such election processes, at times taking charge of the count of ballots.

(4) Carriers contribute or have contributed financial support, both directly and indirectly to company unions.

(5) Carriers pay or have paid, directly or indirectly, the salaries, wages, or expenses of officers, agents, representatives and members of committees of company unions when exclusively engaged in the business of such company unions.

(6) Supervisors, officers, and agents of carriers participate or assist or have participated or assisted in the collection of dues, fees and assessments of company unions.

(7) Carriers extend or have extended special privileges, such as group insurance, donations to relief funds and the like, the benefits of which are confined exclusively to members of company unions.

(8) Officers, supervisors and agents of carriers, by written and oral statements, address or have addressed employees with a view towards encouraging or advising them to join, or not to join, particular labor organizations, and attempt or have attempted to dissuade employees from joining other labor organizations and otherwise from exercising free choice in the selection of labor organizations or representatives.

(9) Carriers and their officers and supervisors assess or have assessed demerits, made reductions in pay, increased working hours, demoted, discharged and otherwise victimized employees for failure to pay company union dues, or to remain members of company unions, for failure to join company unions, or for legally soliciting membership in or joining labor organizations other than company unions.

(10) Carrier officers solicit and maintain or have solicited and maintained lists of names of employees who are members of one labor organization or another, or who have or have not paid dues, these lists being used for the purpose of administering discipline, or otherwise influencing or coercing employees with respect to membership or non-membership in labor organizations.

(11) Carrier officers deny or have denied wage differentials or other legitimate benefits, privileges or opportunities incident to employment to certain employees, on account of membership or non-membership in a labor organization.

(12) Carriers which have in the past required employees to sign a contract or agreement promising to join or not to join a labor organization have not notified the employees concerned by an appropriate order that such contracts have been discarded and are no longer binding on them in any way.

"Under the provisions of Section 12 of the Emergency Act," Mr. Eastman says, "I can apply to a district attorney of the United States to institute in the proper court and to prosecute under the direction of the Attorney General of the United States all necessary proceedings for the enforcement of Section 7 (e). I can also, as I read the statute (particularly Sections 4-8, inclusive), cover all or certain of the practices in question by a prohibitory order, infractions of which will be subject to the penalties of Section 12. Before taking any such action, however, I desire to bring the matter again to the attention of the carriers through the Regional Co-ordinating Committees in the hope that voluntary action will be taken by all of the carriers, as it already has been taken by some, which will make resort to such legal procedure unnecessary. I do this in the profound conviction that if the matter can be handled in this way it will be far better for all concerned, including the carriers, their employees, and the public

generally. The law requires nothing which is not sound, sensible, and just. By complying voluntarily, the railroads will lose nothing; on the contrary they will improve their present position and their labor relations." The statement continues:

In saying this, I take no stand for or against company unions as such. The words "company union" are not defined in the statute, but I interpret them to mean a labor organization whose membership and representatives are confined to the employees of a single railroad company or system. Such organizations are not outlawed by the statute, but the railroads are prohibited from using their funds to maintain them and from influencing or coercing their employees to join or remain members of them. No doubt "company unions" alone were specified in these prohibitions, because it was not thought likely that the railroads would indulge in such practices with respect to other labor organizations. However, the principle is one which plainly should be applied to all labor organizations.

In connection with the prohibited use of carrier funds for the maintenance of company unions, some railroads have pointed out that in the contracts with certain of the national unions it is sometimes provided that local grievance conferences may be conducted on company time. This is quite a different thing from financial support which goes to the general maintenance of a labor organization or to the payment of salaries or expenses of its general officers. But it would be better to discontinue the practice of conducting grievance conferences on company time than to have it offered as a defense for a use of carrier funds which is opposed to sound principle.

Labor organizations are maintained for the benefit of the employees. It is they who should bear the necessary expense. The railroads have contracts with national labor organizations almost universally in train and engine service, and in some instances in other branches of the work. They bear no part of the expense of maintaining such organizations. The fundamental principle is that a representative of one contracting party can not be an effective representative if in the pay of or financially supported by the other. That such a situation is repugnant to sound ethics is recognized by the common law.

All labor organizations are recognized by the Emergency Act provided they are duly designated and authorized to represent employees in accordance with the requirements of the Railway Labor Act. Those requirements are found in Section 2 of that Act, as follows:

Representatives, for the purpose of this Act, shall be designated by the respective parties in such manner as may be provided in their corporate organization or unincorporated association, or by other means of collective action, without interference, influence, or coercion exercised by either party over the self-organization or designation of representatives by the other.

The history of the organization of many of the company unions, as disclosed in the carriers' answers to my questionnaire, points to the conclusion that they have not been duly designated and authorized to represent employees in accordance with the above requirements. Their organization appears to have been tainted in many instances with coercion or influence on the part of the carrier managements. They must be cleared of such taint if they are to meet the specifications of the Emergency Act.

The principle now embodied in the law, in short, is that railroad managements must keep their hands off, so far as labor organizations are concerned. That this principle is sound is not open to question, if we believe, as we must, that employees are free American citizens and not a menial class subservient to the employing class. Whatever may have been the attitude of employees in the past, it is plain that today they are prepared to insist upon the right to bargain and deal collectively with their employers upon equal terms. The provisions of Section 7 (e) with respect to the railroads are paralleled by the provisions of the National Industrial Recovery Act with respect to other industries, and the latter provisions are recognized in the Codes which have been and are being established. The same principles are implicit in the Railway Labor Act and in the Norris-La-Guardia Anti-Injunction Act. They are principles which have, as aforesaid, been accepted by most railroads with respect to certain classes of employees and by some railroads with respect to all classes, and with good results.

Nothing will make for more dissatisfaction among railroad employees and affect their morale more adversely than attempts to undermine these sound principles, which are now a part of the law of the land. No practices retard the permanent improvement of labor relations and destroy the spirit of cooperation between men and managements more effectively than efforts to interfere with free choice of labor organizations and representatives. No one factor leads more certainly in the long run to strikes and threats of strikes. Nor is anything more important to railroad rehabilitation and the future good of the industry than relations between employees and managements which will promote a more constructive and a less defensive attitude on the

part of the employees and their organizations. The employees form the largest part of the industry and they can only prosper as it prospers, but this basic fact is often forgotten when the sound principles which the law now recognizes are denied and can be maintained only through struggle and strife.

To the end, therefore, that railroad labor practices may be brought into entire harmony with the law and the basis be laid for peaceful and cooperative labor relations, I offer for your consideration the following suggestions for action on the part of the railroads:

(1) That all carrier officers, subordinate officials, supervisors, and agents be advised by appropriate notice that influence, or coercion by them of employees with respect to membership or non-membership in organizations of labor or choice of labor representatives, or any interference with such organizations, is illegal and will not be tolerated; and that employees who exercise their right to join or not to join a labor organization, or who legally solicit membership in such an organization or who discontinue membership in or cease to pay dues to a labor organization must not in any way be cautioned, reprimanded, threatened, penalized or otherwise subjected to pressure or discipline because of such action or non-action.

(2) That all employees be advised by appropriate notice posted on bulletin boards and distributed generally that, in accordance with the provisions of Section 2, Paragraph Third, of the Railway Labor Act and paragraphs (o), (p), and (q) of Section 77 of the Bankruptcy Act as amended March, 1933, which paragraphs were by Section 7 (e) of the Emergency Railroad Act, 1933, made applicable to all carriers by railroad, they are free to join or not to join any labor organization and will in no way be penalized or prejudiced by the management because of their choice.

(3) That those railroads which have at any time in the past required any employees as a condition of employment to sign a contract or agreement to join or not to join a labor organization, notify their employees by an appropriate order that such contracts or agreements have been discarded and are no longer binding in any way.

(4) That all railroads cease in any way to contribute financially to the support of any labor organizations or pay the salaries, wages or expenses of any labor or employee representative while engaged on behalf of employees in carrying out the purposes of the Railway Labor Act, except in the case of members of local shop committees who work regularly at their trade and who, by virtue of a written rule included in a labor contract protected by the proviso of Section 10 (a) of the Emergency Act, are not to suffer loss of time when they meet with the local shop supervisors or officials on company time for the purpose of handling a local grievance matter.

(5) That those railroads which retain any control over the constitution and by-laws of any labor organization, or whose officers, subordinate officials, supervisors or agents participate in the process of selecting representatives of employees in connection with labor agreements or disputes, withdraw from all such participation or control.

(6) That those railroads which now extend special privileges exclusively to the members of any labor organization, such as group insurance or contributions to relief funds, either make such privileges available to all employees concerned or cease extending them only to the members of such labor organization.

(7) That those railroads which now audit the accounts and books of labor organizations or act as agents for labor organizations for the purpose of collecting or assisting in the collection of their dues and fees, discontinue providing these services to such labor organizations.

In submitting this matter for your consideration, I do so in the hope and belief that compliance with the law can be assured by voluntary action of the railroads, and I am confident that only good results will flow from such voluntary action. In instances where, because of past managerial labor practices now in contravention of the law, it is not clear that employees have had entire liberty of choice in the matter of labor representation and organization, such employees should now be given opportunity to exercise such choice. In the interest of peaceful and harmonious adjustment of any issue which may arise as a result of such expression of desire, it is my earnest recommendation that both the railroad or railroads involved and the contesting organization or organizations of employees invoke the good offices of the United States Board of Mediation to conduct an election under impartial auspices to decide the issue of labor representation.

In conclusion, I ask your cooperation in dealing with the matter at an early date. It does not brook of further delay. Please advise me before the end of this month of the progress made so that further action on my part may be governed accordingly. I shall be glad to consult with you in regard to the matter, if you so desire.

Development Association Meets at Chicago

Codes will not stop industrial expansion permanently—Resumption expected with general business recovery

INDUSTRIES which have been retarded by the depression and the formation of codes will expand their enterprises and require new locations and larger facilities as business recovers, according to representatives of the railroads attending the twenty-fifth semi-annual meeting of the American Railway Development Association at Chicago on December 7-8. The two major subjects considered at the meeting, over which President C. A. Radford, publicity manager of the Cleveland, Cincinnati, Chicago & St. Louis, presided, were the effect of the National Recovery Administration's activities on business, the results of pick-up and delivery service on industrial expansion and the effect of the repeal of the 18th Amendment on the future of agriculture. In addition to the discussion of subjects pertaining to industrial and agricultural development, Robert H. Ford, assistant chief engineer of the Chicago, Rock Island & Pacific, spoke on The Railroad Grade Crossing Problem; E. C. Craig, general counsel of the Illinois Central, spoke on Regulation; and C. D. Morris, assistant to the chairman of the Western Railways' Committee on Public Relations, spoke on Taxation.

Officers elected were as follows: President, John T. Stinson, director of agricultural development of the Missouri Pacific; first vice-president, John R. Ablett, industrial agent of the Delaware & Hudson; second vice-president, H. J. Schwieter, general agricultural agent of the Illinois Central; and secretary-treasurer, J. A. Senter, industrial agent of the Nashville, Chattanooga & St. Louis (re-elected). The next annual meeting will be held at Kansas City, Mo., in 1934.

During the discussion of N. R. A. codes and their effect on industrial expansion, it was the consensus of opinion that while the activities of the administration appeared to be restricting expansion for the time being, the recovery of business will ultimately necessitate increased capacity of plants and distributing facilities and railroad industrial departments will again be called upon to co-operate in assisting industries to find new locations.

In support of this view, several representatives reported that not a few industries were taking advantage of low prices to acquire properties quietly. While such activity was not confined to any one type of business, it has been particularly noticeable in the distilling and brewing industry.

Another feature of industrial expansion that was considered was that of deserted buildings. Throughout the country, particularly in the Middle West, business failures have occurred, methods of distribution have changed and businesses have outgrown the capacity of their plants. As a result, many factory and warehouse buildings are now idle. The discussion of this condition showed that in the majority of instances these abandoned properties either were not fitted to the requirements of manufacturers and distributors, or being old, lacked the modern conveniences and arrangements demanded by present-day business. It was the opinion of those present that it will be more profitable to dis-

mantle buildings which have outgrown their usefulness and develop the sites for new projects than to expend time and effort to induce industries to utilize the old facilities.

The effect of pick-up and delivery service on industrial property along the railroads was also discussed. Emphasis was placed upon the possibility of manufacturers moving their plants from property adjacent to railroads to cheaper property more distant from the right-of-way if such plants were given uninterrupted service by the railroad's trucks.

Agricultural representatives attending the meeting forecast an improvement in agricultural conditions following the repeal of prohibition.

A discussion of Barley in Agriculture and Industry was presented by James G. Dickson, professor of plant pathology and agent in cereal investigations of the University of Wisconsin.

Other phases of agricultural development considered were the Agricultural Adjustment Administration, the activities of which were described by Hon. John H. Norton, former congressman and member of the A. A. A.; The Soy Bean in Agriculture and Industry, discussed by L. M. Kishlar of the Purina Mills; Agricultural Conditions in Canada and Their Relationship to Railways, described by L. C. McQuat, general agricultural agent of the Canadian Pacific; The Railroads and the Federal Grain Standards Act, discussed by Fred G. Smith, chairman of the educational committee of the Bureau of Agricultural Economics; and Tung Oil Development in Southern Agriculture, described by George E. Murrell, general agriculturist of the Southern Railway.

Mr. Ford, in speaking on the railroad grade crossing problem, discussed the program of eliminating grade crossings as proposed in the emergency legislation under the National Recovery Act. He estimated that approximately 63,000 of the 238,000 existing railway grade crossings could ultimately be closed, leaving about 175,000 crossings on principal state, county and township roads, about 75,000 of which are on railroads where the traffic density is light and where the trains move at infrequent intervals and at slow speeds. Those crossings, at which public convenience, necessity or hazard are not such as justify the cost of their separation, can be adequately protected by automatic crossing devices.

An abstract of Mr. Ford's remarks will appear in a later issue of the *Railway Age*.

The unfairness with which the railroads have been treated in relation to competing forms of transportation is the principal cause of their loss of traffic in the last few years and of the chaos existing in the field of transportation, according to Mr. Craig. He contended that if the railroads are given equal treatment with their competitors, they can produce transportation which will, in most cases, be cheaper than that offered by other agencies. He pointed out that while the railroads must publish and adhere to rates, their competitors may change them as they wish. They may charge one shipper one rate and

another a different rate for the same service. Likewise, in the matter of taxation, he said, other forms of transportation, particularly the waterways, have a decided advantage over the railroads. Trucks and buses using the public highways do not bear their share of the burden of the cost and maintenance of modern roads. Mr. Craig advocated equal regulation of all forms of transportation, that the rates of all carriers be open to the public and that the government withdraw from the transportation business.

Mr. Morris, in discussing taxation, said that the per capita cost of government paid by the people of this country last year was approximately \$125, and that this annual sum will be larger in the immediate future. "We cannot continue to increase governmental costs," he said, "and at the same time maintain the credit of the government without increasing taxation. Already government securities are lower in price and much less popular with investors than they were three months ago. Taxation can be decreased only by the adoption of a governmental policy of spending less rather than by collecting more. The railroads paid \$10,864,070 in school taxes alone in the state of Illinois in 1931, while their competitors paid very little. Commercial highway vehicles paid license fees and gasoline taxes all of which are intended for the highway fund and which, in fact, constitute an inadequate rental for the roadbed they use. No argument has ever been produced to show that a bus or truck used for commercial purposes should be excused from paying school taxes."

P. W. A. Loans Offered For Repairs and Equipment

(Continued from page 846)

the first year. Railroads, as private corporations, are not eligible for the grants of 30 per cent of the cost of labor and materials made to public bodies on approved public works projects.

"These loans," Administrator Ickes said in making the announcement, "will create a great amount of employment in a branch of the heavy industries that has been prostrated by the depression. The widespread regenerative effect that will be felt can be judged by the fact that on October 31 the 170 Class I railroads had orders in for only 127 new freight cars, 7 passenger cars and 1 locomotive; and by the further fact that in the 10 months ending with October 31 they had put into service only 1,872 new freight cars, 57 passenger cars and 1 new locomotive."

The Public Works Administration has received indications that there may be applications from other railroads for loans with which to purchase 8,300 more freight cars, 133 locomotives, 21 passenger cars, 10 suburban trains and 1 gas-electric car, according to its statement.

The New Haven was allotted \$3,500,000 with which to rebuild and improve passenger and freight cars and electrical equipment, and the Lehigh Valley was allotted \$2,000,000 with which to rebuild 2,600 box and coal cars. The New Haven plans to reemploy approximately 700 men in its Readville (Boston), Mass., and Van Nest, N. Y., shops. Approximately \$1,150,000 out of the \$3,500,000 allotted to the New Haven will be spent for labor and \$2,350,000 for material, according to its application.

The New Haven, in its application to the Interstate

Commerce Commission for authority to issue its promissory notes for \$3,500,000 to the P.W.A. explained that "to increase employment it is proposed to anticipate a general overhauling program of passenger train car equipment, a large part of which, under normal conditions, would not be undertaken for a year or two." The program includes an expenditure of \$300,000 for air-conditioning 142 steel passenger cars assigned to through service between New York and Boston and New York and Springfield, \$300,000 for repairing and painting 210 multiple-unit coaches, \$2,400,000 for general overhauling and reconditioning of 900 cars which have reached an average age of 15 years, including the renewal of roof and side sheets for 139 of them and general repairs and certain minor improvements to the 142 cars to be air-conditioned. It also includes painting and heavy repairs for 95 all-steel cars of the New York, Westchester & Boston.

The loan to the Lehigh Valley will enable that road to increase its present schedule of operation in its shops at Sayre and Packerton, Pa., from two days per week to five or six days per week. Approximately \$900,000 of the allotment to the Lehigh Valley will be spent for labor and \$1,100,000 for material, according to its application.

The New Haven, according to its application, will spend \$2,300,000 out of its \$3,500,000 allotment by June 15, next, with the balance to be spent by December 15, 1934. The schedule of the Lehigh Valley calls for spending its entire allotment of \$2,000,000 by June 15 next. These loans thus comply with the Public Works Administration requirement that funds allotted must be used to create immediate employment.

The security for the loan to the Lehigh Valley will be equipment trust notes on the equipment. The loan to the New Haven will be secured by a pledge of bonds now held in its treasury.

The policy of the Public Works Administration is that the security taken for loans for reconditioning equipment will be a matter for negotiation with each applicant. The interest rate on both of the reconditioning loans will be 4 per cent with the exception of the first year, when no interest will be charged. Administrator Ickes specified that the allotments were made contingent on the applicants showing "reasonable promptness" in completing a contract with the administration so that the purposes of the allotment may be accomplished.

Frank C. Wright, director of the Division of Transportation Loans of the Public Works Administration, reported to Administrator Ickes that P.W.A. has received assurances from the managements of a number of important roads that they desire to create additional employment for their shop employees this winter, either with loans from the Public Works Administration or by using their own funds. One is the Maine Central. E. S. French, its president, has written to Mr. Wright:

"For your information and supplementing our telephone conversation of yesterday, I am glad to advise you that the Maine Central now plans to operate its Waterville, Me., shops for the next four months to a considerably greater capacity than the present equipment needs of the company require. Our program in the next four months calls for approximately 258,000 man-hours with an estimated cost of \$201,872 for labor and \$230,628 for material and will, if carried out, substantially increase the number of available equipment units—both locomotives and cars. We are hopeful that the present volume of traffic of this company will continue and if it does we expect to be able to accomplish this repair program without making application to the P.W.A. for equipment repairs."

Transport Chaos Ended in Britain

Trucks as well as buses now regulated—Similar step here
essential to economic recovery

By George W. Alcock

THE SUCCESS of the President's economic program depends upon a resumption in the purchase of capital goods. Only by so doing will we restore industrial stability. It is conceded by economists, business men and politicians alike that the creation of unnecessary facilities through the expenditure of public funds in order to provide work for the unemployed is at best a palliative, involving an ever-increasing burden on the taxpayer. As one step toward industrial stabilization, we have adopted codes for various industries, designed to eliminate unfair competition, and through the campaign of education conducted by General Johnson and his assistants we have learned that any industry maintaining unfair competitive practices will "get a sock right on the nose"—the words are the General's, not the writer's.

A resumption of the purchase of capital goods involves of necessity a resumption of activity in iron and steel. The annual issue of the Iron Age for 1933 presented figures which indicated that railroad purchases of finished steel for the ten-year period ended with 1931 averaged 21 per cent of the entire finished steel production. This was larger than the steel consumption of any other single industry. The next nearest industry was building, which showed an average of only 17.7 per cent of the total. These figures are taken over a ten-year period during which building construction reached its peak. Certainly, therefore, it would appear obvious that to surround the railroads with conditions which will encourage them to increase their purchases is a simple and certain method for giving the capital goods industries the stimulus they so greatly need. Then, too, the railroads are the largest single taxpayers in the United States, and the depression, if it has done nothing else, has emphasized the necessity of maintaining the integrity of taxpaying institutions.

Transportation One Industry—Not Several

Now, in view of the desirability in the public interest of making conditions at least not artificially difficult for the railways, just what is their position under the National Recovery Act? Summed up in a few words: There is *no code for transportation as an industry*, and the railroads are faced with competition so unfair that it would not be permitted in any other industry under any code signed by the President. Notwithstanding the efforts which are being made to encourage the resumption of capital goods purchases by private enterprise, the earning power and consequently the purchasing power of the largest potential customer in the capital goods field is throttled by competition, cut-throat in character, for which there is no redress under the National Recovery Act.

In entire disregard of the necessity of maintaining tax revenue, the taxpaying ability of our largest taxpaying institution is being impaired by competition from transportation agencies operating free from all regulation such as that to which the railroads are subject, over highways and waterways provided by the taxpayers, and for which the railroads themselves through tax payments

have largely contributed. The necessity of creating employment is apparent to all, yet one of our largest employers of labor is handicapped by competition unheard of in any other industry, and, strange to say, the transportation industry is the only industry in the United States exempt from the operations of the National Recovery Act. Unless Congress takes action at its next session these conditions will continue to exist, for the very simple reason that until existing laws are changed no governmental agency has the power to correct this inequitable situation.

Wherein Is Competition Unfair?

Briefly, what constitutes the unfair competition which the railroads suffer, and for which there is no redress under the National Recovery Act?

The railways are subject to an extensive and often meticulous system of regulation and supervision. The system has grown up in a period in which the railways, while competing with each other where the geographical area of their respective services permitted, enjoyed a large measure of monopoly within their own areas, and as regards the classes of transport for which they are especially fitted. There was nothing in the form of effective competition at all comparable with that of the commercial passenger and goods transport services which are now on the roads. This system of control is of especial importance in regard to rates. As common carriers the railways are under obligation to carry goods at rates which do not discriminate between one person and another; the rates themselves are subject to control and must be published. Similarly the arrangements and conditions of service are such as to give very effective protection to the interests of the railway employees; and the ability of the management to make changes is confined within narrow limits and subject to a complex procedure.

The above quotation does not come from any document regarding American railways. It is quoted from the very admirable report filed last year with the Minister of Transport of Great Britain by the committee of representatives of the railways and truck transportation interests of which Sir Arthur Salter was chairman, and which made recommendations regarding the regulation of freight traffic on British highways, the essential features of which report have just been enacted into law by Parliament.

Problem Became Acute in Britain Some Time Ago

The conditions in Great Britain so far as commercial highway traffic is concerned are not greatly unlike those obtaining here, with the important exception that in no country in the world is the number of motor vehicles so great in relation to area as in Great Britain. There, as here, the question of unregulated highway traffic competing with rail lines subject to government regulation was so unfair that it became a matter of national interest. Railways in Great Britain, however, were not subjected to as much regulation and legislation as in the case of railroads in the United States, so that, in this respect, conditions here are much worse. The British were longer in the depression than we have been; their post-war debt, and consequent taxes, were heavier, and their railroad situation became acute several years before ours did. The conditions experienced there are so nearly analogous to what we are facing that a study of

what they have done should help crystalize public opinion here in favor of similar legislative action to solve the problem as Great Britain has done. This legislation should recognize the obvious fact that transportation—whether by rail or highway—is one industry, and that all competing agencies which go to make up the industry should be brought under one supervisory control such as the Interstate Commerce Commission. Certain restrictions on the railroads should be eased, and other forms of transportation should be regulated in the public interest.

Any study of what has been accomplished in Great Britain must take into account the fundamental difference in the form of government as compared with ours. Here interstate transportation is a matter for legislation by Congress. Intrastate traffic, on the other hand, is governed by the 48 respective states of the Union, and each state has a sovereign right to regulate traffic wholly within its own borders, and not interstate in character. Great Britain, on the other hand, has one Parliament with jurisdiction over every mile of highway and over every commercial and private vehicle in the realm. To meet local conditions in Great Britain, therefore, local control bodies are included in the acts passed by Parliament, and boroughs and counties are empowered to make purely local regulations—powers which our states already possess, so that Congress need not concern itself with other than regulation of an interstate character.

Buses Regulated Since 1931

Two important studies were made in Great Britain covering highway traffic, the first that of the Royal Commission on Transport in 1928, and second the report of the Conference on Rail and Road Transport in 1932. The latter, commonly known as the Salter report, is a broad study of highway freight traffic, its effect on rail traffic, and the relation of both forms of transportation to the national welfare. As a result of the report of the Royal Commission on Transport in 1928 the railroads were given the right to engage in highway transport, and in 1930 Parliament enacted legislation effective January 1, 1931, covering all types of commercial motor vehicles, regardless of whether they were in passenger or freight service.

This legislation, known as the Road Traffic Act of 1930, provided among other things for regulation of speed; weight; insurance against third party risks; number of trailers; limitation of time for which drivers of certain vehicles may remain continuously on duty; authority to the Minister of Transport to limit the width, height and length of motor vehicles and trailers and the load carried; the number and nature of brakes; and the right to inspect vehicles, etc. In addition to these general provisions, the Road Traffic Act of 1930 established regulation of bus traffic, but not that of trucks. Under it every operator of a bus carrying passengers for hire is required to secure a public service vehicle license, corresponding to our certificate of convenience and necessity. Passenger vehicles must be inspected, and a certificate of physical fitness secured, with authority to the certifying officer to suspend a vehicle license for defects. The act provides for local traffic commissioners to grant licenses, and discretion is given them to grant or refuse licenses, and their discretion to attach conditions to any such license shall, in the words of the act, "have regard to the following matters":

1. The suitability of routes on which a service may be provided under the license;
2. The extent, if any, to which the needs of the proposed routes, or any of them, are already adequately served;
3. The extent to which the proposed service is necessary or desirable in the public interest;

4. The needs of the area as a whole in relation to traffic (including the provision of adequate, suitable, efficient services, the elimination of unnecessary services and the provision of unremunerative services), and the co-ordination of all forms of passenger transport, including transport by rail.

Authority is also given the commissioners to ensure that fares are not unreasonable, section (b) of that portion of the act regarding fares being particularly interesting—"where desirable in the public interest the fares shall be so fixed as to prevent wasteful competition with alternative forms of transport, if any, along the route of any part thereof, or in proximity thereto."

Special provision was made for traffic in the London area, and since the enactment of the Road Traffic Act of 1930, all traffic—bus, tramway and rail—entering London has been placed under the jurisdiction of the London Passenger Transport Board.

The success attending the regulation of highway passenger traffic was so great that representative of the Commercial Motor Users Association and the National Road Transport Employers Federation joined with railroad executives in recommending to Parliament, through the Salter report, the necessity also of similar regulation of highway freight traffic. This legislation was enacted on November 17, 1933, and, as a result, all highway traffic, both passenger and freight, is now subject to regulation. The Road and Rail Traffic Act of 1933, in providing for licenses for highway freight carriers, distinguishes between three classes of service, as follows:

- A. Public carriers' license, entitling the holder to act as a common carrier, term two years.
- B. A more limited license entitling the holder to carry freight in connection with his own business, or (subject to certain conditions) to carry other specified freight for hire, term one year.
- C. A license limiting the holder to the carriage of his own freight, term three years.

Railway Regulation Relaxed—Five-Ton Truck Taxed \$1177

Licenses for the various traffic areas are to be issued by the commissioners for each, who are already provided for by the earlier Act of 1930. In general highway freight traffic is brought under the same regulations as passenger traffic in such matters of wages, working hours, serviceability of vehicles, etc. No regulation of truck rates is provided, but authority is given the rail lines to make such charges for carriage of merchandise as may be agreed to between the railway company and individual shippers and regardless of regular tariffs, provided such rates shall have the approval of the Railway Rates Tribunal. This provision, of course, gives a tremendous flexibility to the railroad rate structure—far beyond anything known in this country since the earliest days of railway regulation and should go far in enabling the railways to meet truck competition as far as rates are concerned. Moreover, commercial motor vehicles are far more adequately taxed in Great Britain than in this country. For example, the license fee for a truck weighing, unloaded, 5 to 6 long tons, is £120, or approximately \$600 and, in addition, there is a tax on gasoline of 8 pence per imperial gallon (approximately 13½ cents, per U. S. gallon). Based on the Salter committee's estimate of mileage and fuel consumption, the operator of a 5-6-ton truck would pay, on the average, \$577 in gasoline taxes over and above a \$600 license fee.

There has been a feeling of distrust in some quarters that regulation of highway traffic would not be in the public interest, would be detrimental to the highway operators, and unduly favorable to the railroads. The experience in England should dispel this feeling. The successful regulation of bus traffic, and the success attained in the co-ordination of passenger and freight traf-

fic by rail and road justify the statement that regulation is most certainly in the public interest. Moreover, it also benefits highway transportation. Under regulation in Great Britain bus operators have gained at least as much as the railroads. What was previously a disorganized industry, operating under the most pernicious kind of competition and continually verging on bankruptcy, has been converted into an industry of substantial national importance, with every indication that it will earn a fair return on the investment and contribute toward the balancing of the national budget through substantial tax payments on operating profits.

Regulation Benefits Operators and Manufacturers

The commercial vehicle exhibition held recently at Olympia in London strongly corroborates the assertion that regulation has helped motor operators and stimulated the manufacturers. The Diesel motor for heavy haulage by bus and truck, for instance, has had much greater development in Great Britain than here. A large percentage of vehicles at the Olympia exhibition were equipped with Diesel motors. The stabilization of highway traffic has enabled operators to expand their facilities to a point where better vehicles are demanded, and the motor manufacturers, realizing that the economic conditions of their customers are steadily improving, have been encouraged to expend huge sums for research, with the result that vehicles available in Great Britain today are certainly abreast, if not far beyond, anything obtainable here.

The improvement in the character of bus service has kept abreast of the improvement in mechanical equipment. The writer had an opportunity to observe this closely in England a few months after bus traffic was first brought under regulation in 1931, and again the summer just past, and the improvement in service, particularly in the co-ordination of road and rail traffic, was most marked. Lest any reader may feel that conditions in Great Britain were never as bad as they are here, it may be said that shortly after the close of the war, converted army trucks were used to carry passengers, the vehicles being so unsafe that they should have been relegated to the scrap heap. Such a thing as regulation was so far from the minds of the people that the writer has seen two buses, overloaded with passengers far beyond the safety point, race on an old fashioned crowned road eighteen feet wide, and so crooked that a single bus traveling at high speed was a menace. I have seen the drivers, for some fancied grievance, leave their seats and engage in a fist fight, and I have seen the passengers, with that feeling of partisanship in which the British excel, leave their seats and join the fray, carrying on with such vigor that it was necessary to call out the police. If Great Britain without a National Recovery Act can, as she has, solve the problem of bringing transportation under some form of regulation in the National interest, then is it not time that we, with our policy of planned economy for all industry, were shamed into taking some action—at least to stabilize this one industry the revival of which is necessary if our capital goods industries—and hence national prosperity—are to be restored to normal?

It is not the contention that we should follow in detail the Acts of Parliament which have been referred to. The study which Co-ordinator Eastman is making, however, will undoubtedly result in recommendations from him covering legislation suited to the conditions obtaining here. If Congress can be convinced that action is essential in the national interest, then we may expect

that legislation proposed by the Co-ordinator will be passed. Our duty now is to awaken public and political opinion to the necessity for action—immediate action—so that the Co-ordinator's recommendations may receive an intelligent and interested reception. This legislation proposed should impose no hardship on any one form of transportation as compared with any other, and all forms of transportation agencies should be permitted freedom to develop, within the limitations of the public interest, so that shippers would be permitted to select that form of transportation best suited to their individual needs. With this in mind, the statement of the Salter committee as to the basis on which they approached their study is of interest. They said:

Broad Public Interest Must Be Main Concern

We have at all times been conscious of the fact that recommendations which ignored the legitimate interests of those not represented in our conference would be useless. If we made recommendations acceptable to ourselves at the expense of public revenues whether central or local; if we attempted to protect our own interests by diminishing the legitimate transport facilities desired by trade or industry; if we proposed to secure equality of competition as regards wages and conditions of labor by the abolition of the system which protects labor interests on the railways; if we ignored the interests of those who use the roads for pleasure traffic or for non-mechanical transportation—we should expect that our recommendations, however acceptable to ourselves on both sides (railway and road transport), would be rejected as a basis of policy. Bearing in mind constantly this condition of our work, we have attempted to frame a scheme which is not prejudicial to absent interests.

One cannot read a statement of this kind without wondering how we here expect to secure equality of competition under the National Recovery Act for transportation as a whole when it is considered that various groups engaged in hauling passengers and freight for hire are establishing codes without regard to the industry as a whole, and regardless of the railroads which for years have been engaged in hauling passengers and freight under most stringent regulation, and whose rates and wage scale are subject to the Interstate Commerce and Rail Labor Acts.

General Johnson in transmitting to the President the proposed code for the Bus industry took occasion to state that it had suffered not only from the depression, but also from its disadvantageous competitive position with other passenger carriers and that the taxes of its principal competitor, the railroads, had increased but 25 per cent since 1919 as contrasted with 500 per cent increase in the case of the motor bus industry. This statement was misleading, as R. V. Fletcher, vice-chairman and general counsel of the Association of Railway Executives, pointed out in a letter to General Johnson in which he called attention to the fact that the motor bus industry paid in general, special and gasoline taxes, in 1931 on all operations 6.90 per cent of their gross revenue, which included all charges for use of the highways while the railroads on a comparable basis paid 29.8 per cent of their gross revenue in 1931 and 34.5 per cent of their gross revenue in 1932 for taxes and maintenance of their permanent way. It will be seen that only by legislation can any relief be expected when even the National Recovery Administrator himself presents such an erroneous picture to the President.

President Favors Equality of Regulation Under I. C. C.

President Roosevelt is in accord with the recommendation that Congress take action, for in 1932 he said: "we do not desire to put motor vehicle transportation out of its legitimate field of business, for it is a necessary

and most important part of our transportation system, but motor transportation should be placed under the same federal supervision as railroad transportation . . . I advocate the regulation by the Interstate Commerce Commission of competing motor carriers."

This discussion is not a complete survey of rail and road legislation in Great Britain, but it does substantiate a belief that our problem is not peculiar to ourselves; other countries have had the same problem and are dealing with it. The point to be emphasized is that Britain has found the solution so comparatively simple that there is no reason whatever why we should not benefit by her experience and demand that some attempt be made similarly and quickly to correct the present chaotic condition of the transportation industry in our country.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading in the week ended December 2, which included the Thanksgiving Day holiday, amounted to 495,425 cars, a decrease of 85,922 cars as compared with the week before and of 51,670 cars as compared with the corresponding week of last year, which did not include the holiday. This was, however, an increase of 2,107 cars as compared with the week which included Thanksgiving Day last year. Loading of forest products, ore and coke showed increases as compared with last year. The summary, as compiled by the Car Service Division of the American Railway Association, follows:

Revenue Freight Car Loading			
Week ended Saturday, December 2, 1933			
Districts	1933	1932	1931
Eastern	110,930	126,045	144,168
Allegheny	95,470	101,570	125,742
Pocahontas	31,668	37,212	37,715
Southern	74,763	82,936	93,967
Northwestern	56,188	61,996	78,337
Central Western	80,616	84,456	102,606
Southwestern	45,790	52,880	53,831
Total Western Districts.....	182,594	199,332	234,774
Total All Roads	495,425	547,095	636,366
Commodities			
Grain and Grain Products.....	26,361	31,692	32,659
Live Stock	14,376	20,140	27,276
Coal	102,687	121,060	130,107
Coke	5,778	5,388	6,488
Forest Products	20,752	16,663	20,302
Ore	2,835	1,511	3,406
Mdse. L. C. L.	141,196	168,699	202,573
Miscellaneous	181,440	181,942	213,555
December 2.....	495,425	547,095	636,366
November 25	581,347	493,318	558,798
November 18	599,289	572,623	653,503
November 11	577,676	536,687	689,960
November 4	607,785	587,302	717,048
Cumulative total, 48 weeks.....	26,890,886	26,243,765	35,012,832

Car Loading in Canada

Car loadings in Canada for the week ended December 2 totaled 42,426, a decrease of 2,066 from the previous week but an increase of 159 cars over the corresponding week last year.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
December 2, 1933.....	42,426	18,444
November 25, 1933.....	44,492	19,735
November 18, 1933.....	47,420	18,754
December 3, 1932.....	42,267	17,984
Cumulative Totals for Canada:		
December 2, 1933.....	1,185,029	846,132
December 3, 1932.....	1,262,115	855,360
November 28, 1931.....	1,578,925	1,125,882

Railroad Salesmanship Discussed by S. O. Dunn

AN important difficulty confronting the railways in the sale of passenger service is that of determining what kind of transportation the public actually wants and how it wants to pay for it, according to Samuel O. Dunn, editor of the *Railway Age* and chairman of the Simmons-Boardman Publishing Company, in an address on Railway Salesmanship before the General Agents' Association of Chicago on December 6. In discussing this phase of selling, Mr. Dunn said, "Does the public want safety or does it want frequency and speed regardless of the extent to which safety must be sacrificed in order to get them? During the last 20 years safety in railway operation has been put above every other consideration, with the result that the number of passengers carried for each passenger killed increased from less than 3,000,000 in 1913 to more than 17,000,000 in 1932." As a result of this improvement, he continued, it is relatively 30 times as dangerous to ride upon the highways as on the railroads. It is strange that after the efforts of railways to make travel safe, people flock to the highways to be killed 30 times as fast.

The railways are now beginning to introduce light trains which will have the advantages of operating economy as compared with present passenger trains, of high speeds and of the much greater safety of travel by rail than by highway or other means. It will be interesting to observe how effective this combination of speed and safety will be in attracting business back from other means of transportation.

Another thing the railroads would like to know, according to Mr. Dunn, is what and how the public wants to pay for its transportation. When a person rides on a bus, the public pays part of the cost of the service through taxation. When he rides in an airplane at a low charge it is because the airplane enjoys subsidies. Does the public want to pay partly for its transportation in taxes, and, if so, why not subsidize the railroads, too?

A most important phase of selling discussed was advertising. In spite of the efforts of salesmen, he said, there is always the problem of getting people into the ticket office. Merchants use advertising extensively to attract people to their stores and the railways should employ it more than they have. Most railway advertising has been by individual lines to induce people to travel on certain railroads. It has been competitive among the railways. To make railway advertising most effective, Mr. Dunn recommended joint advertising that will educate the public to the service offered by the railroads as a whole.

To demonstrate the extent to which railways have employed advertising to reach the public, he cited the average annual charge to advertising for the three years, 1930-1923, the amount being only \$12,787,300, or 3/10 of one per cent of their gross earnings. The mediums of advertising discussed by Mr. Dunn included magazines, newspapers, lectures to school children, moving pictures and the radio.

One of the phases of merchandising passenger service, which often kills the effectiveness of selling, emphasized by Mr. Dunn, is the treatment of the passenger after he boards the train. Unless, he said, the engineman handles the train smoothly, unless the train crew and other employees treat the customer as a guest and unless the steward and waiters extend themselves to satisfy, the efforts of salesmen and the effect of advertising will be destroyed.

A Workable Plan for Car Pooling Can Be Developed*

Practical car distribution provides systematic movement of empties to points where suitable loading is available

By Olin C. Castle

Director, Section of Car Pooling, Federal Co-ordinator of Transportation

FROM my own experience in car handling and from a rather extensive study of car problems, covering a period of several years, I am firmly convinced that a car pool, based upon sound principles and efficiently operated, would bring about substantial economies in both operation and capital charges. I have no doubt whatever of our ability to develop a practical plan of car pooling. I know that there is sufficient talent in the ranks of transportation men to operate such a car pool successfully.

There is already evidence that shippers' organizations are giving consideration to the possible effect of a freight car pool. The subject has been discussed recently in at least two regional advisory board meetings. In one instance, Pacific Coast shippers adopted a resolution strongly opposing a pool of refrigerator cars, fearing that the excellent service now being rendered by railroad-controlled refrigerator car lines might deteriorate under pool operation. Apparently the sponsors of the resolution overlooked the fact that one of the two refrigerator lines now providing the superior service, which they fear to lose, is itself a refrigerator car pool, operating the largest fleet of refrigerator cars in the United States, and serving under contract numerous railroad systems extending from Canada to Guatemala and from the Pacific ocean to the Gulf of Mexico.

Another instance of shippers' consideration of this question occurred in the wheat belt, where shippers were gravely urged to be on their guard against any proposal which might impair the ability of the carriers to supply them with sufficient cars suitable for their products. The deficiencies of war-time transportation were cited as typical of pool operation. This comparison was, of course, inaccurate and unfair; inaccurate in that the so-called common use of cars under federal control was in no sense a car pool; unfair because those familiar with the operation of the United States Railroad Administration know that its prime objective was the winning of the war, quite different from the purposes which control in a time of peace.

Empty Car Mileage and Cost

Let us consider first the item of cost. In periods of normal traffic, the revenue freight carried by our railroads is equivalent to 10 ton-miles per day for every man, woman and child in the United States. Shippers pay the freight bill and, in paying the cost of transporting this daily burden of commodities to meet the natural needs and the cultivated demands of 120,000,000 persons, are paying the cost of moving an equal tonnage of dead weight. While shippers have been spending mil-

lions in developing methods of packing in efforts to reduce the tare ratio of their packages and, while railroads have directed their attention to the designing of equipment with greater carrying capacity in proportion to the dead weight, a very important item has apparently received little consideration. I refer to the handling of empty cars.

When you have unloaded your 35 tons of freight and paid your freight bill, have you ever stopped to think that in the freight bill you have paid not only for the movement of 23 tons of wood and steel constituting the vehicle in which your goods were brought to your warehouse, but also for the empty movement of that 23 tons of dead weight, a distance of 65 miles for each 100 miles the car moved under load? Incidentally, this empty ratio of 65 per cent (which is for the year 1932) has increased from 47.3 per cent since 1920, a jump of 37.4 per cent. Percentages may not spell very much to you, but when we translate them into actual weight transported at the expense of the paying load, we find that the average increase in the past three years, compared with 1920, amounts to the staggering total of 145,500,000,000 tare ton-miles annually, of which 67,500,000,000, or nearly one-half, were produced by the excess movement of empty cars.

In addition to the empty road haul mileage, you also pay the cost of handling that empty car through terminals and across interchange tracks and the excess repair costs resulting from such movements. To the extent that such empty movement is necessary to balance an uneven traffic flow, the cost is legitimate. To the extent that empty mileage is incurred in excess of that required to balance traffic, operating expenses are increased and your transportation costs are affected directly.

Some of my railroad friends are disposed to treat this item rather lightly, claiming that it costs little or nothing to move empty cars, except when such movements involve the operation of additional trains, and that with regularly scheduled freight service frequently operated with less than full tonnage rating, the movement of empties even in the direction of traffic adds nothing to the cost of transportation. I shall not comment on this further than to tell you that engineering studies have demonstrated that the movement of an empty car on level track requires 80 per cent as much fuel as the movement of the same car under load. I might also say that I doubt if my railroad friends who espouse this unique hypothesis would agree to its application to rate making. It is significant that in practically every proposal for the consolidation of railroads, the saving of empty car mileage is one of the economies claimed for such consolidations.

We still lack sufficient data upon which to base an accurate estimate of the savings which may be effected

* From an address before the annual meeting of the National Industrial Traffic League at Chicago.

through the pooling of freight cars. Various figures have been produced during the past few years, possibly the most recent statement having been submitted as an exhibit in I. C. C. Docket 26000. This exhibit estimates the cost of excess empty mileage for the years 1928 to 1931, inclusive, at an average of \$192,000,000 per year. While this figure may be excessive, any exaggeration is in the rate used in computing the cost. The estimated excess in empty mileage used in the exhibit is almost identical with results arrived at in other independent studies.

In addition to the cost of handling empty cars unnecessarily, there is an excess in the carrying charges for the capital invested in freight equipment. It is obvious that a reduction in the car movement required to handle a given traffic will permit of a proportionate reduction in the number of units required to handle such traffic. The purpose of a car pool is to eliminate this waste and thereby to reduce the cost of rail transportation. Surely this purpose should receive the approval of the men who are paying the freight.

Service

If the operation of a car pool were to result in delays, inconvenience or increased plant expense to the shipper, he might well hesitate to endorse it, even in the hope of an eventual reduction of his freight bill. It has been something of a surprise to me to find that there lurks in the minds of some shippers the idea that the pooling of freight cars would cause the immediate disruption of all systematic car distribution and a rapid deterioration in the condition of freight equipment. It is possible that this idea is largely the outgrowth of the experiences, under federal operation of railroads in 1918-1919, to which I have already referred. At this point I wish to repeat and to emphasize that there is no justification for opposing a car pool under present conditions, merely on the ground that government operation of railroads in war times was attended with inconveniences.

Before I undertake to discuss how a pool under present conditions would affect the service, perhaps I had better give you an outline of the sort of car pool I should like to see in operation. In a general car pool, I visualize the railroads as a single system for purposes of car distribution, with all of the freight cars available for distribution on exactly the same principle that now governs the distribution of cars between the divisions of any large railroad system. This does not mean the nationalization or even the consolidation of the railroads. The development of a standard gage to facilitate interchange of traffic during the two decades following the war between the states had no such result. Neither does this co-ordinated distribution mean that 36-ft. box cars suitable for certain loading in the East or South would be forced upon grain shippers in the West. On the contrary, with the movement of box car traffic preponderate eastward and with a continuous flow of empty box cars westward, there would be little justification under the pool operation for the use of eastern lines' box cars for loading to points west of the Mississippi river. The pooling of car distribution does not imply that coal roads will have their hoppers scattered to the four winds and be forced to rely upon the flat-bottomed gondolas designed for handling other commodities.

Practical car distribution is simply the systematic movement of empty cars from the territory in which they are not needed to points where suitable loading is available. The principle is the same whether it is applied to one car or to two million, and whether the distributive field is a local station or a continent. In the application of this general principle, the efficient trans-

portation man in the distribution of his so-called "system cars" does not ordinarily move empties except to find a load, to bring them to a shop for repairs, or in the case of a surplus, to the nearest available storage point.

There is no logical reason why foreign cars should not be given similar handling, assuming that an adequate maintenance program is observed and national and sectional distribution machinery is set up. I mention an adequate maintenance program first, because I deem that feature of the car pool the prime essential.

In the car pool I am outlining, this feature would be worked out by the best accounting and mechanical talent in the railroad field. The result should be neither a lowering of the standard of maintenance nor the freezing of the standard at a mediocre stage, but rather a general raising of the standard to a point approaching the best. Again I ask you older traffic men if you have not found that such a result invariably follows the pooling of equipment by the merging of weak lines into strong systems.

Inasmuch as I am talking to shippers, I will not trespass upon your time to describe the details of a pool organization, the financial set-up or the method of settling for the use of cars, further than to say that in order to prevent excess empty mileage, we shall have to depart from a method of settlement which penalizes a railroad for the full utilization of foreign cars by creating a car hire expense which offsets the possible saving in empty mileage through the use of such cars.

It is hardly necessary to stress the advantage to a shipper in being able to load any suitable car to any destination, regardless of the initials stencilled upon the sides. Under the system now in effect, there is constant pressure upon the railroads to confine the use of cars to loading which will take them in the direction of their owners. Where car service rules are strictly observed, it is unavoidable that shippers will be hampered in their loading program, and frequently delayed awaiting the selection of cars which may probably be loaded in a particular direction.

One of the problems to which your organization has devoted a great deal of thought and to which it has applied much constructive effort is the code of demurrage rules and charges. It seems to me that there is a direct relation between car pooling and demurrage.

It might be worth your while to study the possible effect of a change in the principles of car handling upon demurrage, particularly upon demurrage charges. For example, there are those who advocate a sliding scale which would vary the free time and the charge with changes in the relation between car demand and supply; in other words, minimum or nominal charges and liberal free time in periods of surplus, with gradually increasing rates and diminishing free time as the demands for cars increased. Certainly there is ground for the objections which shippers urge against paying a penalty for car detention when thousands of cars are standing idle. A flexible code of rules and charges should benefit shippers and receivers of freight enormously. Unfortunately, however, the per diem method of settlement between railroads for cars in interchange renders the adoption of such flexible rates difficult if not impracticable. Demurrage rules and rates apply regardless of the ownership of the car and so long as the carrier is penalized in the per diem rate for the foreign car delayed at your warehouse, he is going to exact from you his pound of flesh, notwithstanding the fact that he may have hundreds of surplus cars on his rails. Under a pool system, this potent objection to a flexible scale would disappear.

An Automatic End-of-Double-Track

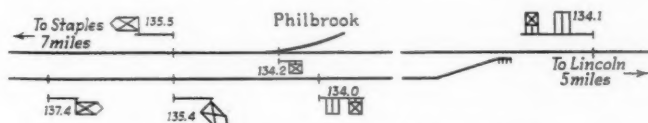
Preferential clearing sections give desired flexibility of train operation—Economies return 90 per cent on investment

AUTOMATIC interlocking has replaced a mechanical plant at Philbrook, Minn., on the Northern Pacific where a 153-mile section of double track converges to single track. The mechanical interlocking machine which controlled the end-of-double-track switch and related signals was located in the nearby station and was operated by the telegraph operators on the three eight-hour shifts. Since the automatic interlocking was installed, only one shift has been employed, the second and third tricks having been eliminated. With the present force at Philbrook station, the net saving effected will amount to \$3,600 annually, equivalent to a return of 90 per cent on the investment of \$4,000 required to make the change in the signaling.

Average Daily Traffic

Philbrook is in automatic-block-signal territory, on the main line between St. Paul and Seattle. The average daily movement comprises six passenger, six time freight and one local freight train. The signals are normally at Stop, and upon the entrance of a train in any one of the three approach sections, the power switch is automatically operated to the desired position, and the signal which the train is approaching, then clears. The approach signals, as well as the top arms of the home signals, operate to the 90-deg. position.

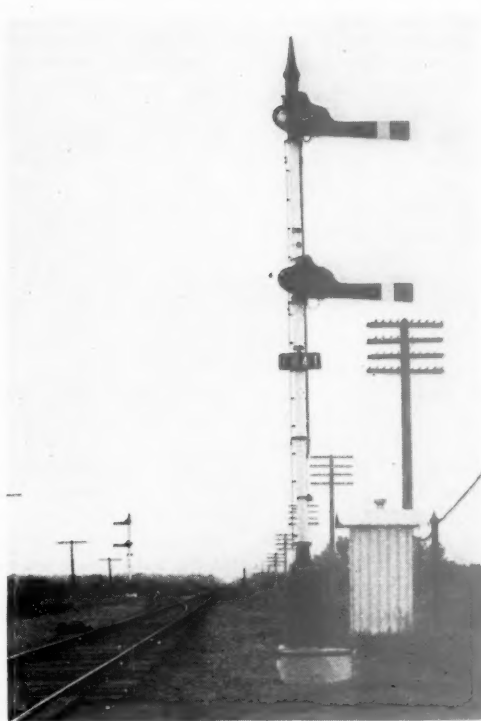
In order to give preference to westbound trains, the clearing section for signal 1341 extends to the westward headblock signal at Lincoln, five miles east of signal 1341, whereas the clearing section for signal 1340 extends only to signal 1374, and that for dwarf-signal 1342 extends only to signal 1355. If an eastbound train and a westbound train approach Philbrook simultaneously, the westbound train ties up the plant by clearing signal 1341, and holds the eastbound train at signal 1340 until it (the westbound train) has passed signal 1342. In such a case, the double track is utilized as a passing



Track and Signal Plan at End-of-Double-Track

track. Even if an eastbound train clears signal 1340 before a westbound train enters its approach clearing section (that is, before the westbound train passes Lincoln), the latter train will cause signal 1340 to be restored to the Stop position, and, after a time interval of two minutes, signal 1341 will clear for the westbound train.

Adequate signal locking is provided by a time relay which drops when an approaching train causes the corresponding signal to clear. This relay remains de-energized until the cleared signal is restored to the Stop position, by reason of the train having entered the detector track section in which the power-operated



View from the Single Track to the Double Track

switch is located. The time relay then starts to operate, and as soon as its operating time-interval of two minutes has elapsed, it closes its front contacts and the interlocking plant is then ready for another move, provided, of course, that all other conditions are proper for such a move.

The switch machine and signal were furnished by the General Railway Signal Company, the machine being the Model-5D, dual-control, and the signals Model-2A semaphores. The construction work, as well as the design, was handled by the signal department forces of the Northern Pacific, under the direction of S. W. Law, signal engineer.

PENSION ACTS, providing for the retirement of employees of the Queensland Government Railways of Australia have been repealed, according to recent reports received by the United States Department of Commerce. The repealing law, while stipulating that no further pension will be granted to retiring railway employees, nevertheless preserves the rights of those already retired and any rights of the widows of pensioners. Employees who have contributed to the original fund will be credited with the amount of such contributions, and will on retirement receive that amount with interest at savings bank rates.

MYSTERY EXCURSIONS or "excursions into the blue", as they are called there, will be tried in Sweden next summer. Last summer low rate excursions to definite places attracted many extra travelers, each train being sold out in advance, and the new system is expected to attract even more. It has already been tried in Denmark, whence "blue trains" crossed on ferries to Sweden. One advantage over the excursion trains with known destinations is said to be the fact that no one can take advantage of the low rate to avoid paying for a regular ticket to a definite locality.

New Books...

A. S. M. E. Power Boiler Code, 1933 Edition. Published by the American Society of Mechanical Engineers, 29 West Thirty-Ninth street, New York. 314 pages, 5½ in. by 8 in. Bound in cloth. Price, \$2.50; to members, \$2.

The A. S. M. E. Boiler Construction Code comprises eight sections. In this volume are included but three sections which pertain to the construction and inspection of stationary boilers for the development of power. These are: Section I, Power Boilers; Section II, Materials Specifications, and Section VI, Rules for Inspection. Stationary boilers as here considered include portable and traction boilers. The Code applies only in part to certain special forms of boilers, such as those of the forced-circulation or flash type. Suggested rules covering existing installations are included in the Appendix, which is explanatory, and not mandatory, in enforcing the rules of the Code. The rules for the inspection of materials and boilers (Section VI) also are suggestive only and do not form a part of the Boiler Code.

The Railroads in Laboratory—A Brief Digest of Research and Experimentation, Conducted by Railroads Individually and Collectively Through the American Railway Association in the Interest of Constant Improvement of Their Facilities and Service. 544 pages, 6 in. by 9 in. Bound in paper. Published by the American Railway Association, Washington, D. C.

It is to be presumed from the subtitle of this book that it is intended as an effective answer to the allegation that the railroads have been delinquent in the application of modern research. A reading of the book by one who is not conversant with the outstanding improvements in railway equipment, tracks, structures and practices that are the direct result of a high order of research should go a long way to convince him that the critics are right. This statement cannot, however, be applied with equal force to all of the chapters, which represent the work of many writers. Some sections tell a convincing story of accomplishment in individual fields. Others evidence a misconception of what research means.

In arrangement the book follows closely the organization of the American Railway Association, with separate chapters devoted to the work of its various divisions, sections and special committees, prefaced by an introduction and an historical review (Chapter I) that are the work of Edward Hungerford. This introductory material serves well the function of enlisting the reader's interest, but it fails to accomplish its full purpose because it is not effectively tied to what follows. The historical material stops short, chronologically, of any connection with the accomplishments of recent years, which the succeeding chapters purport to disclose.

Of all the chapters in the book, that devoted to the research and development of locomotives and cars is by far the best. It marshals such a mass of specific test projects as to leave in the mind of the reader no doubt as to the influence of research on the design and construction of rolling stock. It evinces an understanding of the objectives to be gained by the publication of a book of this kind that was so evidently lacking in the minds of those who wrote some of the other chapters.

Whether this was the result of inadequate instructions to the authors of the individual chapters, lack of time for a thoroughgoing job, or lack of equipment, it is impossible to say, but it is evident that the preparation of some of the chapters consisted primarily in the lifting of material from the annual proceedings or manuals of approved practices of the various divisions, and this without a high degree of discrimination. What good is to be accomplished, for example, by the inclusion of highly involved definitions of parts of technical equipment in a volume that is intended for the layman? Much space has been given in some of the chapters to the listing of a multitude of standard specifications, but with almost no mention of the bases, scientific or otherwise, upon which these specifications were founded.

The title of the book, "The American Railroad in Laboratory," is given an inexplicable interpretation in the chapters on "Transportation" and on "Purchases and Stores," which are devoted almost in their entirety to expositions of improvements in administrative practices designed to increase economy. If research had a part in this, it is not disclosed in the text, nor

is the fact that the testing department occupies an important place in railway purchases.

The chapter on "Automatic Train Control" makes a rather good case, as does the chapter on "Freight Containers," but the longest chapter, that on "Engineering Research and Development," covering 130 pages, fails to do justice to the remarkable contribution that the American Railway Engineering Association has made to the application of scientific methods in the advancement of railway practices.

The preparation of a symposium with an objective as ambitious as that attempted in "The American Railroad in Laboratory" is no mean task. It calls for a thorough understanding of highly technical subjects, rare discrimination in the selection of material, skill in writing, and more time than a division secretary, beset with routine administrative duties, can find at his disposal. But, more than this, it calls for a thorough conception of the project as a whole by an editor-in-chief who has adequate authority and ample time to exercise detailed supervision over the work of the various staff editors. It would seem that failure to appreciate these exacting requirements is largely responsible for the unfortunate deficiencies of the book.

Odds and Ends...

29 Miles per Month

When Chicago's Century of Progress Exposition closed its gates, Fred Metcalf of East Grand Forks, Minn., and G. A. Kingsley of Portland, Ore., both retired engineers on the Northern Pacific, concluded six months of pretty slow going in the cab of a locomotive. These two engineers had charge of the Minnetonka, the first locomotive ever purchased by the Northern Pacific, which was a feature of the show known as "Wings of a Century" at the Fair. Although the Minnetonka was in service every day of the Fair, with the exception of three days when rain prevented the show, it is estimated that it actually traveled only 174 miles during the entire six months.

"Repeal" News

With the newspapers full of news about repeal of the 18th Amendment, this department must fall into line. The first "California Wine Special," consisting of 12 cars containing 45,000 gal. of several varieties of California wines, reached Chicago from Asti, Cal., a few days in advance of Repeal Day. Celebrating the dispatch of the first eastbound trainload of legal wine since 1919, the Asti Italian-Swiss colony staged an old-time wine festival. Men, women and children, attired in the costumes of their native lands, participated in folk dances as the train started on its way to Chicago, the locomotive bearing a few red stains as the aftermath of the christening of the train with a bottle of red wine.

Author! Author!

Authorship of the catch question published on the "Odds & Ends" page of the *Railway Age* of September 2 and again referred to in the *Railway Age* of December 9, is claimed by John Moore, railway editor of the Amarillo, Tex., *Globe-News*. A letter recently received from Mr. Moore reads, "I beg the privilege of informing you that the 'brain teaser' credited to R. J. Littlefield, supervisor of motor service of the Pennsylvania, was not originated by that gentleman at all. It was originated by myself when I was in Santa Fe service at Clovis, N. M., some 10 or 12 years ago." Mr. Littlefield, of course, did not claim to have originated the problem; he merely passed it along after coming across it in a list of questions put to applicants for the job of highway patrolmen in the state of Pennsylvania. The phraseology of the question gives considerable weight to the claim of Mr. Moore that the problem originated with himself while on the Santa Fe, for Vaughn and Roswell, the two towns mentioned in the problem, are on the Santa Fe. This department thinks that Mr. Moore should feel flattered that his problem has lived through the years with only the slight change—quite in accordance with modern practice—involved in the substitution of automobiles for locomotives and trains.



THESE Are The Money Makers

THE best of the railroads' motive power is now being used to handle reduced traffic at reduced costs.

These modern locomotives are the real money earners.

Have you enough of them to handle increasing traffic at the same low cost or will you be forced to turn to less efficient locomotives as business comes back?

Now is the time to ask yourself this question.



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NEWS

Economic Planners Propose More Transport Competition

Unofficial study suggests federal financing of \$5,400,000,000 for "transportation"

A two-year program of possible expenditures amounting to \$5,400,000,000 for "transportation," including under that head grade crossing elimination based upon the premise of government credit, is suggested in an unofficial study prepared by a committee in the Division of Economic Research and Planning of the National Recovery Administration, outlining a total construction program of some fourteen billion dollars, which has been transmitted to the Public Works Administration for its consideration.

The transportation part of the program is summarized as follows:

Grade crossings and highways corrections, \$2,400,000,000; super-highways, \$1,000,000,000; railway improvements—roadbed and other work exclusive of rolling stock, \$1,500,000,000; terminals, piers and docking facilities, \$500,000,000.

Part of the idea seems to be that the stimulation of highway construction would create a competitive situation which would compel large additional expenditures for railway construction and at the same time widen the field for expenditures at grade crossings. The report of the study has not been released for publication, on the theory that it does not represent any official action or recommendation on the part of the N. R. A., but copies or extracts from it have been given considerable unofficial circulation.

The "most feasible source" of immediate construction in the field of transportation is said to lie in grade crossing elimination, one of the purposes authorized in the public works part of the national industrial recovery act. The Bureau of Public Roads, Department of Agriculture, has amassed considerable data on this subject and some projects of this kind have already been approved by the P. W. A. It is stated that calculations have been made to show that the program suggested would furnish work for two million men a year on a two-year program.

As to highway transportation it is stated that surveys by the Bureau of Public Roads indicate that in some sections of the country, notably in the eleven western states, there is little need for much highway work, but that in some of the Rocky Mountain states it was found that some of the present highways are used only to 6 to 10 per cent of their possible utilization. On the other hand, "it appears that

widening of existing highways around and through large cities, similar to the New York-Philadelphia program, so as to make access to major cities by motor easy and quick, would be economically and socially justifiable. Such a program could use a billion and a half dollars to advantage.

"Undoubtedly express highways between the large metropolitan centers east of Chicago and north of the Ohio river would be productive of considerable regenerative construction in that it would change commercial possibilities as well as industrial possibilities.

"In improving the transportation system by means of express highways, it is necessary to consider the rehabilitation of the railroads themselves. Certainly with the increased tempo brought about by such a highway system, competitive conditions as regards railroads would necessitate an increase in their standards. This in turn re-opens the problem of grade crossing elimination, an important factor in the speed of trains. There have been numerous experiments both in this country and Europe in the use of light rolling stock traveling at approximately 90 mi. per hr. If the passenger speed norm in the United States were increased to this point, it would necessitate considerable reducing of grades and straightening of curves at a possible cost of two billion dollars.

"The financial condition of the railroads with their present capital set-up is such that even ordinary roadbed expenditures made necessary by present traffic have been delayed due to lack of funds. It would require some reorganization of the railroads and this must include the consideration of increasing the speed of both passenger and freight service. It may be that such express highways as mentioned above would force such a reorganization on a purely competitive basis."

Reduce Coach Rate on Western Lines

Western railways will place a further reduced coach rate in effect during the holiday season from December 16 to January 1. During this period the round-trip coach rate will be one and one-half times the present two-cent one-way rate. Tickets to return will be good until January 15.

Number of Employees Reduced

The number of employees in the service of Class I railroads decreased from 1,023,204, as of the middle of October to 997,502 as of the middle of November, according to the Interstate Commerce Commission's monthly compilation. This represents an increase of .08 per cent as compared with the number in October, 1932.

Cornwell in Address Scores Prince Plan

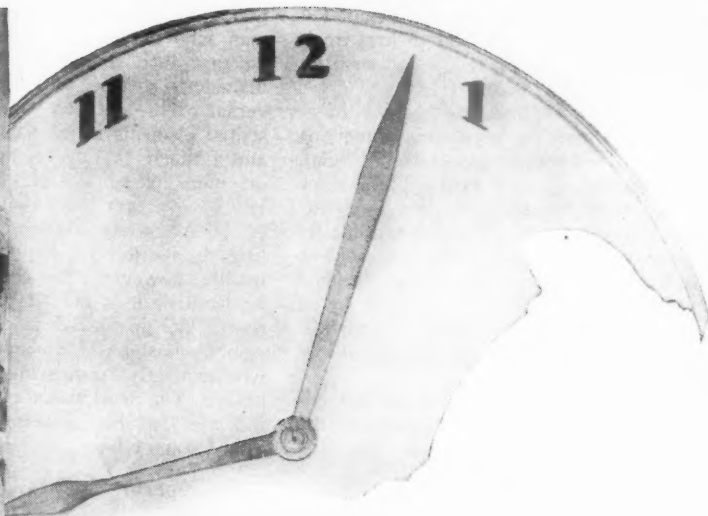
B. & O. general counsel calls scheme "child of government official pressed by financiers"

Renewing his attack on the so-called Prince, or Barriger plan for railroad consolidation on a regional basis, John J. Cornwell, general counsel of the Baltimore & Ohio, addressing the Allegheny Regional Advisory Board at Pittsburgh, Pa., on December 14, expressed his lack of sympathy with the fact that the plan is being studied by co-ordinator Eastman.

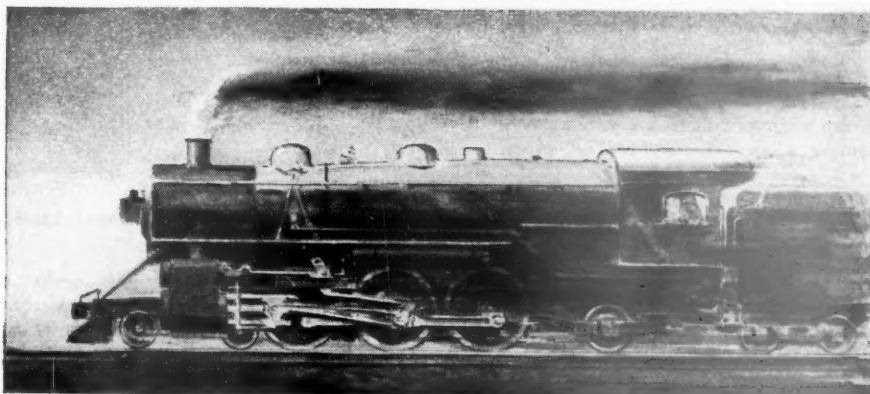
"This so-called Prince plan," he continued, "is the most radical suggestion in connection with the railroads of which I have any knowledge. As you doubtless know, it proposes but two systems in Eastern Trunk Line Territory—the New York Central and the Pennsylvania.

"I should think the shippers of this region would look with disfavor upon a plan that would eliminate the competitive service they now have or which would be afforded under the final plan of the Interstate Commerce Commission which provides for four systems in this territory, even were consolidation, under the Prince plan, to be made in the ordinary way, which is not the case. On the other hand, it is to be effected, in so far as it pertains to proposed System No. 2, the Pennsylvania by removing from the Baltimore & Ohio and its affiliated and connecting lines, all through freight and passenger business; reducing the Baltimore & Ohio to the status of a No. 2 branch line, with purely branch line service and facilities. It would take up the railroad, in its entirety, between Washington and Philadelphia; make of it a single track railroad between Baltimore and Washington on the east and Chicago and St. Louis on the west—that single track line to do nothing but local work, all freight originating on it to be taken to the main line of the Pennsylvania and transported over it.

"I need not picture to those whose industries are on the Baltimore & Ohio what that would mean to their business. It is not necessary in this presence to discuss the disastrous effect upon many towns and communities the scrapping of a great railroad system would have. It is obvious, so obvious I have had persons say to me: 'It is a crazy scheme. Why talk about it?' Well, Mr. Eastman thinks it worthy of study, at railroad expense, he says because it is 'typical' of all railroad consolidation plans. In what respect it is typical of all or any other plan I do not know for I



New Demands Can't be Met With Old DESIGNS

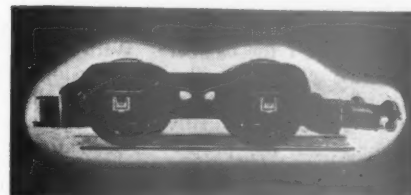


Elapsed time between terminals, both for passenger and freight trains must be lessened. Lower operating and maintenance expenses demand lighter weights.

These requirements cannot be satisfied by building motive power merely larger than that of ten years ago but essentially of the same vintage.

New locomotives must be inherently much superior pound for pound

and dollar for dollar. They should incorporate The Locomotive Booster as a fundamental part of the design and thus obtain more power with less weight and with lower operating and maintenance cost.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

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have heard of no other that contemplated tearing up thousands of miles of first track and wrecking railroad facilities to such an extent as does this plan.

"Aside from an exhaustive study of it by Mr. Eastman he says the framer of the scheme is another government official, J. W. Barriger, chief railroad examiner for the Reconstruction Finance Corporation, although Mr. Prince financed its preparation and it bears his name. The child of one government official, studied by the Co-ordinator and pressed by a group of financiers, certainly the proposal can not be ignored with safety, radical and ruthless as it is.

"Certainly this is true when an influential, an outstanding, member arises in the United States Senate and says 'the railroads are done'; when propaganda is abroad in the land that they can be dispensed with. You traffic managers of great industries know the absurdity of trying to continue business without the railroads but you are not numerous enough to influence Congress.

"What is the railroad problem today? From the discussions, those who do not know would think they were failing to function. As I have said, despite the depression they are rendering excellent service. The only problem is lack of business. They cannot compel operators to mine and ship coal; steel mills to manufacture and ship steel. They can haul only what is to be shipped—no more.

"They are excessively taxed, excessively regulated, yet there is an energetic group which will strongly urge upon the coming Congress that the office of railroad Co-ordinator be made permanent; that he be given autocratic authority and power over the railroads; that he virtually be required to take over their management and operation.

"The railroads' only problem is lack of business. The decline in their business has been less in percentage than in steel and most other heavy industries. Despite fostered, unregulated and subsidized competition, which the railroads have been taxed to provide and maintain, even a partial business recovery means stability, solvency, even prosperity, for the railroads, especially if they are given an equal opportunity to compete with other forms of transportation.

"Instead of further hampering and strangling the railroads with more regulatory laws, would it not be wiser to establish in our federal government a Department of Transportation, with its head a member of the cabinet? With that department charged with the duty of aiding all forms of transportation, all of them regulated equally and equitably, working for the proper co-ordination of all kinds of transportation in the public interest? With such a department; with proper authority; with a man of the type of Mr. Eastman at its head; with his energy and his knowledge of transportation, a Department of Transportation could be helpful to all transportation agencies and of immense service to the public."

Cure Careless Workers

Careless workmen must be cured of their carelessness—it is not always good

policy to dismiss from the service every man who deserves it, even if there were no grievance committee to wear out the manager's patience in efforts to get a reversal of the decision—and one of the essential elements in most cures is a friendly and fatherly talking to, by the foreman—or, more likely, a series of talks. This is the primary idea set forth by the A. R. A. Safety Section, under the above title, in its lecture for January. In this month, however, the committee delivers no lecture; it is only a picture, the usual poster, 17 in. x 22 in., printed in two colors. It shows a workman before a boss who evidently "means business" very seriously. The workman's manner and dress indicate that his deportment record must thus far have been considerably below 100.

Superintendents Convention

By vote of the Executive Committee, the American Association of Railroad Superintendents will hold its annual convention at the Hotel Sherman, Chicago, on June 19-21, 1934.

Another Store-Door Tariff

The Chesapeake & Ohio, the Chicago, Indianapolis & Louisville, the Erie, the New York, Chicago & St. Louis, and the Pere Marquette are among the participants in an I.C.L. store-door collection and delivery tariff which was filed with the Interstate Commerce Commission on December 12 with an effective date of December 15. Provisions of this new tariff are substantially the same as those of others which had previously been filed by the Pennsylvania, the Erie and the Grand Trunk.

Eastman Inquires Into Short Line Problem

Co-ordinator Eastman has addressed a questionnaire to railroads and switching and terminal companies of Classes II and III and to electric lines having annual operating revenues of less than \$1,000,000, intended to develop essential facts as to phases of the so-called "short line railroad problem", including the extent and physical condition of the properties of such carriers, the part they play in the communities which they serve, their traffic and earnings, their interchange relations with other carriers, their control and status as tap lines or industrial railways, their competitive problems, and their views on consolidation.

Special Erie Train to Central Railway Club Annual Dinner

The Central Railway Club of Buffalo will hold its forty-fifth annual dinner at the Hotel Statler, Buffalo, N. Y., on January 11. A special train of the Erie will leave Jersey City, N. J., about midnight on January 10 to carry members and guests to this meeting. It will consist of recreation, single bedroom, drawing room, compartment and standard sleeping cars and a dining car. The train will be parked in Jersey City early on the evening of January 10. The Parmalee Transportation Company has arranged to carry passengers in its taxicabs from any point in New York from 110th street south direct to the train at 85 cents a passenger, or \$1.50 for

three persons. The Erie has made a special low round trip rate. There will be special entertainment provided in the recreation car at Jersey City before departure of the train, and those contemplating attending the meeting are requested to make early reservations for accommodations. S. MacClurkan is chairman of the New York delegation, in care of the American Arch Company, 60 East Forty-second street.

More Waterway Expenditures Proposed

The chief of engineers of the Army, Major General E. M. Markham, has recommended that the present project for the improvement of the Illinois river waterway be modified to provide for a channel 300 ft. wide and 9 ft. deep from the mouth of the river to Starved Rock, Ill., a distance of 231 mi., and that modern locks and dams be constructed in the general vicinity of Lagrange and Peoria, all at an estimated cost of \$15,530,000.

The chief of engineers also has recommended to the House committee on rivers and harbors favorably on the proposed construction of a ship canal extending from the Delaware river at a point about 41 mi. below Philadelphia to the head of Chesapeake Bay, to provide for a channel at sea level to accommodate vessels drawing 25 ft. and having a depth of 27 ft. and a width of 250 ft. from the Delaware river to Elk river and thence 400 ft. wide down Elk river and Chesapeake Bay to deep water at or near Poole's Island. The estimated cost is \$12,500,000, with \$200,000 annually for maintenance and operation in addition to present requirements.

Pennsylvania Uses New Philadelphia Station

The main waiting room and concourse of the new Pennsylvania station at Philadelphia, Pa., was placed in use on Friday, December 15, and the temporary station quarters just off the northwestern wing of the building, which have been in use since September 28, 1930, will be closed. The ticket offices will be transferred to the new location between the main concourse and the waiting room. Entrances to the station are now on Market street, at the intersection of Thirtieth street, and under the main portico of the station on Thirtieth street. Stairways, elevators and escalators serve the lower track level which is used by the New York-Washington trains, while a short ramp leads directly to the suburban concourse from which escalators and stairways lead to the upper track level. This level is used by the suburban trains in and out of Philadelphia, as well as the trains to and from the main line to the west, and the hourly trains from Philadelphia to New York. It consists of six tracks and three platforms.

All baggage will be handled in the baggage and parcel rooms which are so situated as to be practically surrounded by the main waiting room, the bus terminal, the two concourses and the connecting ramp between the suburban concourse and the station proper.

In a 24-hr. period the present schedules call for 537 trains to pass through this station of which 88 per cent are electrically operated. Of this number, 497

Every Brick In The Arch Is Important



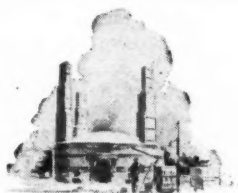
For proper functioning of the Arch every brick must be in place.

So, too, with Arch Brick supply. Every step from combustion study and design to the checking of Arch Brick performance must be adequately organized. Just to make brick and call it Arch Brick is insufficient.

For 25 years, the American Arch Company has kept you supplied with Arch Brick. Their engineers have helped with combustion problems. Their service of supply has made certain that you had Arch Brick delivered promptly wherever needed.

Quality has been maintained at a high level by close cooperation with the country's leading refractories manufacturers.

Every step in supplying Arch Brick is adequately covered. Such organization has a distinct value.



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SECURITY ARCHES
Than Just Brick*

**HARBISON-WALKER
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***Locomotive Combustion
Specialists*** » » »

are on the upper level, and include all Philadelphia suburban trains. The other trains, 40 in number use the lower or river level and consist exclusively of the through north and south trains which operate between Washington, D. C., and New York. The station proper is 328 ft. by 638 ft. and the main concourse is 295 ft. long by 134 ft. wide, with a ceiling 97 ft. high.

Entrance to the station from the east will not be possible until Pennsylvania boulevard, the new city bridge to carry it over the Schuylkill river, and the north and south driveways paralleling the river have been built.

Work on the station proper is 90 per cent completed. The track layout on the river level, through the station and the yards serving it, is about 30 per cent completed. The entire project calls for five platforms and ten passenger tracks on this level. Each platform will be 1500 ft. long, sufficient to accommodate a train of 18 standard passenger cars. Only two tracks and one platform are now in use. There will also be a stairway leading from each platform down to the Market Street subway.

Reduced Summer Rates in Western Territory for Pacific Coast

In addition to the reduced passenger fares which became effective on western railways on December 1, further reductions will be made by the railways on round-trip summer excursion fares between points in the western territory and the Pacific Coast. From May 15 to October 15, three classes of round-trip summer excursion fares to and from the Pacific Coast will be in effect. First-class tickets, good in Pullman cars, will average slightly less than two cents per mile in each direction, the first-class round-trip fare between Chicago and the Pacific Coast being \$86. The round-trip intermediate class fare for tickets good in tourist sleeping cars will be \$68.80, and the round-trip fare for tickets good in day coaches only will be \$57.35. Corresponding reductions will be made in the round-trip rates between St. Louis, Mo., Kansas City, Minneapolis, Minn., Omaha, Neb., and other points in western territory and the Pacific Coast. Likewise, similarly reduced first-class round-trip fares will be authorized to Mexico City. Stopovers will be allowed at all points on both the going and the return trip. Furthermore, extensive diverse-route privileges will be offered, enabling the tourist to make his outbound journey over one route and to return over an entirely different route, if he so desires.

Trucking Association Withdraws from National Transportation Conference

The American Trucking Associations, Inc., announced on December 7 its withdrawal as a participant in the deliberations of the National Transportation Conference. The reason given was that "the representatives comprising this conference—chiefly those of the railroads—were deliberately flaunting the national recovery act in their recommendations, failing to consider the activities of the trucking organization in formulating a code."

Representatives of the trucking organization had participated in the six meetings held by this conference. The open break came when the trucking representatives suggested that the proposed N. R. A. code for their industry be taken into consideration in the conference's recommendations for federal legislation affecting highway transportation. An amendment to this effect was offered to a resolution presented in New York at the sixth conference meeting on December 6, but was voted down, according to the statement.

Spokesmen for the trucking association said that even though the railroads were not under the national recovery act, they could not fail to consider the effect of this act on one of their competitors which was subject to a code of fair competition, and that "No good end can be served by the participation of the trucking industry in a conference whose principal consideration is the problems of the rails." They further stated that the printed reports of previous meetings of the conference failed to note objections and criticisms voiced by the trucking representatives.

I.C.C. Prescribes Minimum Rates For Ex-River Coal

On the ground that the maintenance of the present rates on "ex-river" coal to points in Ohio has tended to disrupt the rate adjustment in the territory and jeopardize the revenues of the rail carriers, the Interstate Commerce Commission, upon further hearing, has issued a third decision in the case prescribing minimum rates higher than present rates, which it finds to be unreasonably low in relation to the all-rail rates. Findings in former reports are modified by a new finding that the rates on coal originating at mines on the Monongahela, Allegheny, and Ohio rivers, transferred from river barges or boats to railroad cars when for track delivery at the destinations named, are unreasonably low to the extent that they are or may be less than the following: From Colona and Conway to Youngstown, Ohio, 90 cents, and from transfer points on the River division of the Wheeling & Lake Erie to Canton and Massillon, \$1.20, and to Cleveland, Lorain, and South Lorain, \$1.45. The commission further found that the maintenance of ex-river rates on any lower basis would constitute undue prejudice against operators of inland coal mines located in the Freeport, Pittsburgh, Connellsville, and Fairmont districts and undue preference of operators of river mines. The present rates of 77 cents, \$1.02 and \$1.27 respectively are said to have deprived the inland mines in great measure of their former markets in northeastern Ohio.

Revision of Newsprint Rates Prescribed

The Interstate Commerce Commission on December 9 put out its report on the investigation of rates on newsprint, which has been under way since 1928, prescribing scales of rates based on 25 per cent of the first class rates to apply from producing and shipping points in Official territory, Wisconsin, Michigan, Minnesota and Canada (in so far as the transportation

takes place within the United States) to destinations in Official and Southern territories. The report also includes numerous complaint cases involving some of the rates. The rates prescribed are stated as maximum reasonable rates, with the idea that railroads will have to cut under them in many instances to meet water and to some extent truck competition. No rates are prescribed from the international boundary but the carriers are permitted to file revised joint international rates in harmony with the domestic adjustments prescribed. The report says it would be undesirable either that revision of the domestic adjustment be delayed any substantial time or that it be made in advance of the revision of the international adjustment and the carriers will be expected promptly to advise the commission of their intentions and to proceed with the formulation and filing of new schedules, both domestic and international. Commissioner Tate dissented, objecting because the commission failed to point out to the American carriers how they can establish reasonable rates from the border. Commissioner Mahaffie also dissented, giving similar reasons and also objecting that the rates prescribed are too low for maximum rates. The fact of water or truck competition, he says, is no reason for the commission to reduce the general level and he thought no basis lower than 27.5 per cent of the first class rates would be justified.

Study of Railroad Employment to Provide Jobs for 2,012

Study of the employment and earnings history of approximately 300,000 employees of Class I railroads has been approved as a Federal Civil Works project, it was announced on December 13, by Harry L. Hopkins, Federal Civil Works Administrator. The project will provide jobs for 2,012 workers in nine states. It will be carried out by the Labor Relations Section under the Federal Co-ordinator of Transportation. The information will be collected from the records of railroad companies selected according to location and the availability of data required and will cover the period from 1924 to 1933, inclusive. It will furnish from the employment records of individual workers a factual basis for estimating the costs of retirement pensions, unemployment insurance, and dismissal pay for employees of the railroads. In submitting the study to Mr. Hopkins as a civil works project, Joseph B. Eastman, Federal Co-ordinator of Transportation, said:

"In the Act of Congress creating the office of Federal Co-ordinator of Transportation, the Co-ordinator was instructed to report to Congress his recommendations as to a permanent labor policy for the railroads of the country. For some time, the members of standard railroad unions have been pressing Congress for legislation creating social insurance institutions to replace the voluntary benefit systems now maintained on many railroads. These voluntary schemes have been largely unsatisfactory from the point of view of employees and have, as well, involved the railroads in grave financial difficulties."

Mr. Eastman pointed out that several bills on these subjects are now before

Continued on next left-hand page



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Congress and that in view of the importance of the cost element, which involves sums running into the hundreds of millions of dollars per year, it is considered essential to collect data which will provide an adequate basis for cost estimates.

Senator Robert F. Wagner, chairman of the Subcommittee of the Senate interstate commerce committee, which considered pension legislation last year, has informed Mr. Eastman that in his opinion it would be "exceedingly helpful to Congress if adequate and reliable facts can be secured, interpreted, and made available through your good offices in respect to railroad pension and other proposals looking toward the improvement of the general stability of railroad labor. A comprehensive statistical investigation for this purpose, the funds for which would be furnished by the Federal Civil Works Administration, therefore, has my hearty endorsement."

R. V. Fletcher, general counsel for the Association of Railway Executives, has informed Mr. Eastman that the railroads recognize the importance of the study.

P. & S. Division Discusses Problems

A special bulletin has been issued by the Purchases & Stores Division, A.R.A., announcing the results of the last meeting of the general committee of the division in Chicago on November 10 and reporting the progress of its work since that time. According to this bulletin, the division was authorized by the Association of Railway executives to appoint special code committees, one for each commodity, with the understanding that these committees will, upon invitation of the industries, participate in discussions of the N.R.A. codes in so far as railroad purchases are concerned; and arrangements were made for their appointments. The committees on codes are in addition to the regional committees previously appointed, which deal with the inconsistencies that may be involved in codes after their adoption by industries.

It was announced also that group meetings are being held in various localities in the eastern, western and southern regions. A meeting of the southern group has already been held in Atlanta, while other group meetings will be held in the near future, one in the east and another at St. Louis. R. L. Lockwood, director of the section of purchases on the staff of the Federal Co-ordinator will be present at these meetings.

A. G. Follette, general material supervisor, Pennsylvania, has been appointed chairman of the division's committee on standardization and simplification, while all subject committees of the division were continued for the ensuing year.

It was also announced in the bulletin that the general committee has no disposition to discourage railroads from furnishing information to publications on purchases and stores matters.

Charles W. Foss Dies

Charles W. Foss, securities analyst for the investment house of Adams & Peck, New York, and for fifteen years a member of the editorial staff of *Railway Age*, died at the Neurological Institute, New York, on December 10 following an op-

eration. Born in Boston, Mass., in 1891, Mr. Foss was graduated from Harvard College in 1913, having completed also a part of the railroad transportation course of the Harvard Business School. For a short time after his graduation he was employed in the paymaster's office of the Boston & Albany; then in the freight traffic department of the same road; and



Charles W. Foss

thereafter was for a short time on special assignment in the office of the general manager of the New York, New Haven & Hartford. In the autumn of 1913 he joined the staff of *Railway Age* as associate editor in New York and remained in that position until 1920 when he was appointed financial editor, which latter post he resigned in 1928 to enter the service of Adams & Peck, where he specialized in the analysis of the securities of leased railway lines, upon which subject he was a recognized authority. In addition to his writings for the *Railway Age*, Mr. Foss wrote frequently on railway matters for periodicals of general circulation and for the daily papers. He contributed articles on railways to Nelson's Cyclopaedia and was a member of the advisory board of that publication.

Results of Mechanical Division 1933 Letter Ballot

At the session of the American Railway Association, Mechanical Division, held in Chicago, June 27, 1933, the recommendations from various committees were ordered submitted to a letter ballot of the members. These recommendations, totaling 51 in number, to amend the standard and recommended practice of the division, have just been formerly approved, effective March 1, 1934.

The detailed results of the letter ballot are covered in Mechanical Division circular No. D.V.-810, which shows favorable action regarding recommendations of the various committees, as follows:

Brakes and Brake Equipment.—(1) On the proposition to permit the use of the wing-type emergency valve and piston, and the short-stem type emergency valve.

(2) On the proposition to adopt as standard the requirement that A. R. A. standard triple-valve test racks must be equipped with a device for locating the feed groove, as recommended by the committee.

(3) On the proposition to adopt as standard the No. 15 brake beam, including compression member, tension member, head, strut, shoe key and assembly, and the substitution of head, strut and assembly for those now shown in the Manual.

Car Construction.—(4) On the proposition to adopt as recommended practice, designating letters

and definition for box cars equipped with permanent automobile stowing equipment.

(5) On the proposition to adopt as recommended practice, designating letters and definition for electric passenger trailers.

Couplers and Draft Gears.—(6) On the proposition to substitute knuckle nose wear and stretch limit gage No. 24992-A for gage No. 24992. (Note: In the stretch limit portion of Gage 24992-A, as shown on page 27 of Circular D.V.-807, the $1\frac{1}{16}$ -in. dimension should be corrected to $1\frac{1}{8}$ and the $1\frac{1}{16}$ -in. dimension should be corrected to $1\frac{1}{4}$. The gage should also have the letter "A" stenciled on it in addition to the number to designate the latest type gage.)

(7) On the proposition to adopt as standard, the revised coupler contour shown in Fig. 3, pages 29-56, to be designated as A. R. A. Standard No. 10-A contour.

(8) On the proposition to adopt as standard the relocation of the knuckle-pivot-pin hole and the addition to the pulling surface of the pin protectors of standard Type-E couplers.

(9) On the proposition to approve as standard, the change in radii of pulling lugs and pin protectors for standard Type-E couplers.

(10) On the proposition to approve as standard, the changes to A. R. A. standard Type-E coupler gages.

(11) On the proposition to authorize the coupler manufacturers to scrap their patterns, core boxes and gages covering the Type-D coupler bodies.

Loading Rules.—(12) On the proposition to show Interchange Rule 36 in the revised Loading Rules in condensed form.

(13) On the proposition to add paragraph to the General Rules.

(14) On the proposition to add paragraphs to Loading Rule 1, Sec. L, Par. 2.

(15) On the proposition to revise Fig. 23, Rule 132.

(16) On the proposition to revise Fig. 44-E, Rule 201-A.

(17) On the proposition to revise Loading Rule 220.

(18) On the proposition to adopt proposed Fig. 60-A in place of Fig. 58, 59 and 60, Rule 223.

(19) On the proposition to revise Loading Rule 230 and eliminate Sketch A.

(20) On the proposition to revise Loading Rule 240-B.

(21) On the proposition to adopt revised figures for the loading of cast-iron pipe, Rule 252.

(22) On the proposition to revise Loading Rule 261.

(23) On the proposition to reduce the size of stakes.

(24) On the proposition to revise the requirements for cleats underneath car floors.

(25) On the proposition to adopt the methods proposed by the Committee for the loading of steel-wire mesh and bar mats.

(26) On the proposition to revise Loading Rule 302 and Fig. 99, 100 and 101, and adopt new Fig. 101-A-1.

(27) On the proposition to revise Loading Rule 302-A.

(28) On the proposition to adopt Fig. 101-H and 101-I covering the loading of heating and locomotive-type boilers.

(29) On the proposition to revise Rule 306 and Fig. 103-A and 103-C.

(30) On the proposition to adopt new Fig. A, B and C covering the loading of four-wheel auto trailers, composite freight containers and all-metal freight containers.

(31) On the proposition to revise Loading Rule 405 and Fig. 112-C and eliminate Fig. 112-B.

(32) On the proposition to revise Loading Rule 414 and Fig. 111.

Locomotive Construction.—(33) On the proposition to adopt as recommended practice, reducing tees, air pump union studs, reducer couplings and caps, and straight pipe couplings.

(34) On the proposition to revise Page 8, Sec. F, of the Manual, covering shrinkage allowances for locomotive tires.

(35) On the proposition to adopt as recommended practice that convex die blocks be used in clamping bands in hydraulic press, as shown by Fig. 3, or its equivalent.

(36) On the proposition to adopt as recommended practice that nibs be applied to the two outer top and bottom leaves alongside of the band and in the center, as per Fig. 4, or in the center with band depression looking into the nib.

(37) On the proposition to adopt recommended practice for checks, flanges, stud-circle diameters and reinforced plates for injectors.

Lubrication.—(38) On the proposition to add to the recommended practice for new car oil, a specification for all-year-service car oil.

(39) On the proposition to revise the specifications for dust guards.

Specifications for Materials.—(40) On the proposition to replace the present standard specifications for carbon-steel bars for railway springs with recommended-practice specifications.

(41) On the proposition to revise the recommended-practice specifications for carbon-steel castings.

(42) On the proposition to revise the recommended-practice specifications for air, gas and oxygen hose.

MERRY CHRISTMAS

AMERICAN LOCOMOTIVE COMPANY



30 CHURCH STREET NEW YORK N.Y.

HAPPY NEW YEAR

(43) On the proposition to revise the recommended-practice specification for chain.

(44) On the proposition to revise the recommended-practice specification for elliptic springs.

(45) On the proposition to withdraw from the Manual all of the specifications for paints and paint materials.

(46) On the proposition to withdraw from the Manual the present recommended-practice specifications for lumber and replace them with the revised specification recommended by the Committee.

Tank Cars.—(47) On the proposition to revise standard drawings of A. R. A. fundamental dome ring and cover.

(48) On the proposition to adopt as recommended-practice, dome covers for ICC-104-A and ICC-105-A tank cars.

Wheels.—(49) On the proposition to revise the recommended-practice specifications for cast-iron wheels.

(50) On the proposition to revise the recommended-practice symbols for marking defective cast-iron, cast-steel, wrought-steel and steel-tired wheels.

General Committee.—(51) On the proposition to adopt alternate location for retaining valve on box and other house cars.

on December 18. A bridge is also to be constructed where the line crosses the Missouri river. Bids for clearing the right-of-way, grading and the construction of pipe culverts were received on November 29 but were rejected because the lowest bids exceeded by 25 per cent the estimated cost of doing the work with hired labor and leased equipment, which is approximately \$140,000. The rails, switches and frogs for the line are to be inserted under a lease agreement.

Equipment and Supplies

P. W. A. LOANS OFFERED FOR REPAIRS AND EQUIPMENT.—See this article on page 846 of this issue.

Construction

MISSOURI-KANSAS BELT & TERMINAL.—This company has applied to the Interstate Commerce Commission for a certificate authorizing it to construct and operate a line between Kansas City, Kan., and Topeka, unifying several detached segments now being operated as branch lines by other railroads. The proposed construction, as described in the application, is between Kansas City and Valley Falls, 65.3 miles, between Leavenworth and McClouth, 22.8 miles, and between Oskaloosa and Topeka, 27 miles, with 7.5 miles of sidings. C. C. Briggs, of Kansas City, Kan., is president.

NEW YORK, NEW HAVEN & HARTFORD.—For the purpose of improving the efficiency of its big electric generating plant at Cos Cob, Conn., which supplies practically all of the power for its electrified division between New Haven, Conn., and New York this road is remodeling the boiler house at the plant and installing two modern steam generating units at a cost of approximately \$500,000. Plans for this work were announced in the *Railway Age* of September 2, page 354. The new equipment is expected to effect a saving of between \$60,000 and \$100,000 a year in the operation of the Cos Cob station. To meet the requirements of the new steam generators it will be necessary to erect a new smoke stack at the plant. This stack will be equipped with a cinder eliminator which will remove all soot and dirt from the smoke before it is released into the open.

PUBLIC WORKS ADMINISTRATION.—The Public Works Administration, through the United States Engineer office at Kansas City, Mo., has undertaken the construction of a line extending from Wiota, Mont., south 14 miles, over which construction materials and supplies will be transported to the site of the Ft. Peck dam, a public works project. The line will be constructed of 90-lb. rail. Bids were opened on December 15 for furnishing 60,000 untreated cross-ties and 141 M. ft. b.m., of untreated switch ties for the line, while bids for the construction of a bridge over the Mills river will be opened

LOCOMOTIVES

THE NORTHERN PACIFIC is arranging for equipment trust notes amounting to \$1,250,000 and has completed negotiations with the Baldwin Locomotive Works for the purchase of 10 passenger locomotives. Inquiry for this equipment was reported in the *Railway Age* of October 14.

FREIGHT CARS

THE LEHIGH & NEW ENGLAND is inquiring for 500 freight cars to include 250 steel box, 150 steel hopper and 100 steel underframe gondola cars, all of 50 tons capacity.

IRON AND STEEL

THE LEHIGH & NEW ENGLAND has ordered from the Bethlehem Steel Company 3,019 tons of 130-lb. headfree R. E. rail and 183 tons of 100-lb. R. B. rail.

MISCELLANEOUS

THE NEW YORK CENTRAL plans a complete air-conditioning of the Twentieth Century Limited and also will air-condition cars in its principal trains between the chief commercial centers which they serve. Sleeping cars, dining cars, club cars and some coaches will be equipped. Dining cars on the Century already are air-conditioned. The work of installing the new equipment is expected to be completed and the cars ready for service next summer. Since July, 1932, this road has air-cooled cars on its principal trains serving not only New York and Chicago, but in the other leading cities on its lines. The Central now owns about 200 units of air-cooling equipment which will be retained to cool cars on trains that do not have the new air-conditioning apparatus.

PENNSYLVANIA.—All through passenger trains on this road will be air-conditioned next summer according to an announcement made recently by D. M. Sheaffer, chief of passenger transportation. The work of installing machinery and appliances in the

additional cars required for this service has just been started. Last summer for the first time all of the hourly trains between New York and Philadelphia on the Pennsylvania as well as its through trains between New York, Philadelphia and Washington carried air-conditioned coaches, dining cars and parlor cars. Their use will be extended to the main line service for all through trains between the principal cities of the East and West. The Pennsylvania at the present time, the announcement says, has in operation the largest fleet of air-conditioned trains of any railroad in the world. The additional coaches, diners, and Pullman parlor and sleeping cars which will be placed in service between now and next May in its through East and West trains will raise the total number of air-conditioned cars to almost 700.

Supply Trade

The Independent Pneumatic Tool Company has moved its New York sales office from 1463 Broadway to 330 West Forty-second street, New York City.

Joseph T. Ryerson & Son, Inc., of Boston, New York and Chicago has purchased the stock and good will of Bacon & Company, iron and steel company of Boston, Mass.

Edward J. and George T. Henggi, of Oakmont, Pa., announce the formation of the Henggi Rail Anchor Company at Oakmont, for the purpose of marketing the Henggi rail anti-creeper.

E. A. Tolley, since February, 1933, assistant manager and prior to that salesman in the San Francisco (Cal.) branch of the Garlock Packing Company, Palmyra, N. Y., has been appointed district manager of that branch, succeeding C. D. Allen, deceased.

H. Ross Poulson has been appointed sales engineer in the Transportation and Government department of the Johns-Manville Sales Corporation, with headquarters at Chicago. Mr. Poulson was formerly associated with Johns-Manville, and during a brief interruption in his employment was associated with the American Hair & Felt Company.

F. W. Waterman, president of the National Tube Company, a subsidiary of the United States Steel Corporation, will retire under the pension plan of the corporation on January 1. Except for a brief period when he was connected with the Canadian steel companies, Mr. Waterman has been in the service of various companies now affiliated with the United States Steel Corporation in sundry capacities, serving since January, 1929, as president of the National Tube Company. The Finance committee of the corporation has recommended that Benjamin F. Harris, president of the Oil Well Supply Company, one of the subsidiary companies, be elected to succeed Mr. Waterman as president of the National Tube Company. Mr.

Harris will, for the present at least, continue also as president of the Oil Well Supply Company.

The Gale Service & Construction Company, Chicago, has organized a separate department to engage in the building up of battered rail ends and the repair of crossings, frogs, etc., by welding, and has placed **C. O. Hunt** in charge. Mr. Hunt was employed from 1905 to 1913 on location, construction and maintenance by the Chicago, Burlington & Quincy. After



C. O. Hunt

engaging in private business for three years he then entered the employ of the Ajax Forge Company, Chicago, later a part of the Ramapo Ajax Corporation, as an inspector, relief foreman, and for six years, prior to 1928, as superintendent of the Chicago plant. Following another year in the engineering department of the Burlington, he entered the service of the Electric Railweld Sales Corporation, Chicago, in 1930, with which company he was employed until May, 1933, as superintendent.

Hearing on Safety Appliance Code

Public hearing on a code of fair competition for the railway safety appliance industry was held on December 11, by Assistant Deputy Administrator F. H. Kuhn of the National Recovery Administration. W. W. Salmon, of the General Railway Signal Company, chairman of the industry's code committee, presented a code establishing a 40-hr. work week averaged over six months with the provision, however, that in peak seasons the industry may work as long as it deems necessary. Minimum wages for factory or so-called "processing" employees, are fixed at 40 cents an hr. "unless the rate per hr. for the same class of labor was on July 15, 1929, less than 40 cents," in which event the wage may be as low as 32 cents. Learners are to receive 80 per cent of this minimum. Office employees are to be paid a minimum of \$15 per week, with office boys and girls, and learners, getting \$12.

The code as presented contains a section providing that it shall continue in force for a period of ninety days after its effective date and "thereafter during the period that Title I of the National Industrial Recovery Act shall be in effect unless terminated, prior to the expiration of the last

mentioned period by a vote, at any regular or special meeting of members of the code having the right to cast at least two thirds of all the votes as provided by the by-laws of the executive committee that might be cast at such meeting if all the members of the code were present thereat in person or by proxy."

Myron C. Taylor, chairman of the **United States Steel Corporation**, announces that **Edward R. Stettinius, Jr.**, has been selected by the Finance committee for the position of vice-chairman of the Finance committee of the corporation, effective April 1, 1934, and succeeding to the vacancy arising from the promotion of William J. Filbert to the chairmanship. Mr. Stettinius is at present vice-president of General Motors Corporation. He was born on October 22, 1900, at Chicago, Ill., and was educated at the University of Virginia. Mr. Stettinius entered General Motors in 1924, through the Hyatt Roller Bearing Company. In 1926, he was appointed assistant to John L. Pratt, vice-president of General Motors, in charge of accessory divisions, and in 1930, Mr. Stettinius became assistant to the president. In May, 1931, he was elected vice-president of General Motors. He is also a director and vice-president of General Aviation Corporation; a director and member of the executive committee of North American Aviation, Inc., and of Transcontinental & Western Air Express, Inc., and a director of Eastern Air Transport. He served in active charge of the National Share-the-Work Movement for the Second Federal Reserve District in 1932. In June, 1933, he was appointed liaison officer between the



Edward R. Stettinius, Jr.

Industrial Advisory Board and the National Industrial Recovery Administration, and has been in Washington for the past six months in that capacity.

C. W. Bennett, who, on January 1, becomes president of the **American Sheet & Tin Plate Company**, with headquarters at Pittsburgh, Pa., as announced in the *Railway Age* of December 9, has been connected with the steel industry since 1892. He has been with the American Sheet & Tin Plate Company, or properties absorbed by it, since 1897, serving in various capacities and was acting president of that company since January 1, 1933. Eugene W. Pargny, whom Mr. Bennett

succeeds as president of the American Sheet & Tin Plate Company, has served as president of that company since 1909. Mr. Pargny entered the employ of the Apollo Iron & Steel Company in 1890 continuing with that company and its successor, the American Sheet & Tin Plate Company, in various official capacities. In 1904 he served as second vice-president and in 1906, was elected first vice-president becoming president in January, 1909. Mr. Pargny at his own request will be relieved



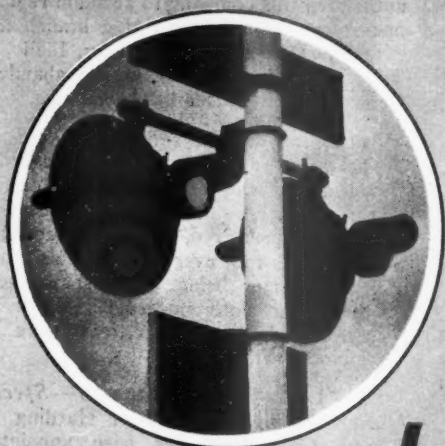
C. W. Bennett

of his duties on January 1 next and retire under the pension plan of the United States Steel Corporation of which this company is a subsidiary.

A. L. Humphrey Elected Chairman of Westinghouse Air Brake Company

A. L. Humphrey has been elected chairman of the board of the Westinghouse Air Brake Company, to succeed the late H. H. Westinghouse. At the time of his election Mr. Humphrey was executive director, and prior to that time had been president for 14 years. His latest achievement is significant for two reasons: It marks the culmination of 30 years' service with the company; and it is the first time during the company's history that anyone outside of the immediate Westinghouse family has been so honored. Mr. Humphrey was born at Buffalo, N. Y., but later moved to a rural community in the middle west. He received his early education at the country schools of Maquoketa, Iowa, and Plattsmouth, Neb., and worked on the farm. Following this, he obtained a position as a drug clerk and thereupon determined to study pharmacy. Circumstances intervened, however, as a local physician, then chief surgeon for the Burlington & Missouri River (now part of the C. B. & Q.), recognizing a mechanical trend in the youth's mind, persuaded Mr. Humphrey in 1877 to accept a position as machinist's apprentice with what is now known as the Chicago, Burlington & Quincy.

His mechanical aptitude and ability to handle men were soon recognized and rapid advancement followed, leading him to places of continually growing importance in the mechanical division of seven different western railroads. While following his profession in Colorado he became interested in politics and was elected



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1881

Union Switch & Signal Co.
SWISSVALE, PA.

1933

to the legislature, serving two terms, including one as speaker of the House. Later he became superintendent of motive power of the Chicago & Alton, which position he relinquished to join the Westinghouse Air Brake Company as western manager at Chicago in 1903. Two years later he went to Pittsburgh as general manager. Since then he has held the following positions: Vice-president and general manager, 1910; director, 1913; president, 1919; executive director, 1932.

In addition Mr. Humphrey has many



A. L. Humphrey

business connections including the following: Chairman of the board, Union Switch & Signal Company; Massey Concrete Products Corporation, Chicago; National Brake & Electric Company, Milwaukee, Wis.; First National Bank of Swissvale; Swissvale Trust Company; Westinghouse International Brake & Signal Company. Chairman of the executive committee and director, Pittsburgh Aviation Industries Corporation. Director, American Brake Company; American Brake Shoe & Foundry Company; Bendix Aviation Corporation, Chicago; Canadian Westinghouse Company, Ltd., Hamilton, Ont.; Federal Reserve Bank of Cleveland, Pittsburgh Branch; First National Bank of Pittsburgh; Pennsylvania Airlines, Inc.; Safety Car Devices Company; Union Trust Company of Pittsburgh; Westinghouse Pacific Coast Brake Company; Bendix-Westinghouse Automotive Air Brake Company; Westinghouse Air Brake Home Building Company. Vice-president and director, East Pittsburgh & Wilmerding Coal Company. Trustee, University of Pittsburgh.

OBITUARY

C. D. Allen, district manager of the San Francisco (Cal.) branch of the Garlock Packing Company, Palmyra, N. Y., died on December 4 at Burlingame, Cal. Mr. Allen began his services with the Garlock Packing Company in March, 1903, as a clerk in the main office at Palmyra. He also served in the Cleveland branch, later becoming salesman at Cleveland, Ohio. He subsequently was consecutively manager for the same company of the Cleveland, Boston, Mass., New York and San Francisco branches. He had been on leave since August, 1932.

Financial

ALABAMA GREAT SOUTHERN.—Dividend.—The directors of this company have declared a dividend of \$2 a share on its common stock and \$1.50 a share on its preferred—this being the first declaration on the common since 1931, although a disbursement of \$1.50 was declared in November, 1932, on the preferred and paid in February of this year. A majority of both common and preferred issues is held by the Southern Railway.

BOSTON & MAINE.—Abandonment.—This company has applied to the Interstate Commerce Commission for authority to abandon operation of parts of its line in New Hampshire, between Hudson and Fremont, 21 miles, and between Epping and West Gonic, 18 miles.

CANADIAN NATIONAL.—Purchases. Debentures of Subsidiary.—The board of directors of this company has authorized purchase of the outstanding 4½ debenture stock of the Toronto Suburban Railway Company, a subsidiary of the Canadian Northern Railway Company, it was announced in Ottawa by Hon. R. J. Manion, Minister of Railways. The outstanding shares total £540,000, the basis of payment being £25 for each £100. Operation of the Toronto Suburban Railway, an electric line, was discontinued in July, 1931, after it had failed for some years to meet operating expenses.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Bonds.—The Interstate Commerce Commission has authorized this company to procure the authentication and delivery of \$9,866,000 of first and refunding mortgage 6 per cent bonds, series A.

GRAND TRUNK WESTERN.—Lease.—This company has applied to the Interstate Commerce Commission for authority to acquire control by a new lease of the property of the Cincinnati, Saginaw and Mackinaw.

LEHIGH VALLEY.—W. S. Franklin Asks To Continue As Director.—W. S. Franklin, vice-president of the Pennsylvania and president of the Wabash, has filed a supplemental application with the Interstate Commerce Commission for authority to continue to serve as a director of the Lehigh Valley as representative of the Wabash interest in that property, asking that the commission consider the exceptional circumstances of the case instead of applying its general rules. The commission recently authorized Mr. Franklin to continue to serve as president and a director of the Wabash while holding his position on the Pennsylvania, but reserved consideration of the application as to the Lehigh Valley.

MORRISTOWN & ERIE.—Bonds.—The Interstate Commerce Commission has authorized this company to issue \$72,000 of 6 per cent 10 year bonds, \$60,000 thereof to be exchanged at 97 for outstanding bonds or sold at that price and the proceeds used to purchase bonds now so exchanged, and the remaining \$12,000 of bonds to be sold at not less than 97 and the proceeds used to pay notes.

OREGON SHORT LINE.—Abandonment.—The Interstate Commerce Commission has authorized this company to abandon regular operation within 30 days of a branch line extending from Talbot Junction, Idaho, to Talbot, 9.1 miles, and complete abandonment of the line after fifteen months.

ST. JOSEPH & GRAND ISLAND.—Dividend.—The directors of this company have declared a dividend of \$5 a share on its senior preferred stock and \$4 a share on the second preferred, the latter declaration being the first ever made on this issue, and the former being the first payment on the senior stock since 1902. Both issues are held almost in their entirety by the Union Pacific.

ST. LOUIS-SAN FRANCISCO.—Special Master Appointed.—John T. Harding of Kansas City, Mo., has been appointed special master by United States District Judge C. B. Faris at St. Louis to hear claims and other litigation against the railway. He will receive \$600 a month. The court recently upheld the constitutionality of Section 77 of the new Bankruptcy law governing the reorganization of railroads, which provides for placing claims for personal injuries to railroad employees in the preferred list of creditors. The ruling was requested by J. M. Kurn and John G. Lonsdale, bankruptcy trustees. Attorneys for the Central Hanover Bank & Trust Company, the trustee for bondholders had contended the section violated the Fifth Amendment to the Constitution. In his ruling, Judge Faris also held that sureties on supersedeas bonds given on appeals of judgments for claims rendered prior to the railroad going into bankruptcy are not entitled to the preferred creditor classification unless the claims paid arose out of personal injury or death of an employee of the railroad.

Average Prices of Stocks and of Bonds

	Dec. 12	Last week	Last year
Average price of 20 representative railway stocks..	40.64	38.78	24.63
Average price of 20 representative railway bonds..	67.84	64.80	57.19

Dividends Declared

Alabama Great Southern.—Common, \$2.00; Preferred, \$1.50, both payable December 30 to holders of record December 18.
 Atchison, Topeka & Santa Fe.—5 Per Cent Preferred, \$3.30, payable February 1 to holders of record December 29.
 Chicago, Burlington & Quincy.—\$3.00, payable December 26 to holders of record December 15.
 Old Colony.—\$1.75, quarterly, payable January 2 to holders of record December 16.
 Pittsburgh, McKeesport & Youghiogheny.—\$1.50, payable January 2 to holders of record December 15.
 St. Joseph & Grand Island.—1st Preferred.—\$5.00; 2nd Preferred, \$4.00, both payable December 28 to holders of record December 21.

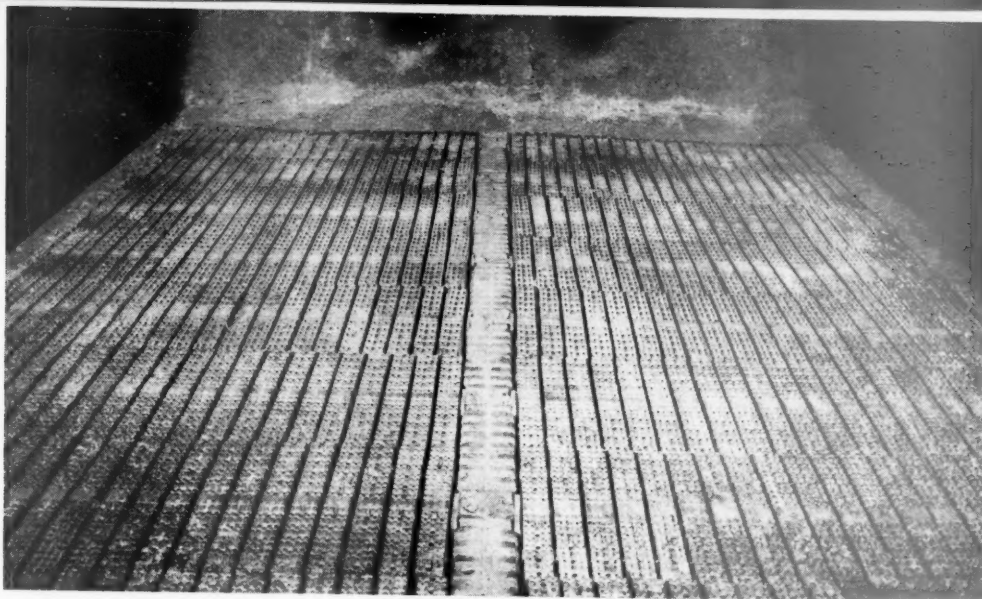
Valuation Reports

The Interstate Commerce Commission has issued final valuation reports, finding the final value for rate-making purposes of the property owned and used for common-carrier purposes, as of the respective valuation dates, as follows:

Rio Grande City.....	460,000	1927
Steelton & Highspire.....	910,000	1927
Chicago, Springfield & St. Louis	1,900,000	1927
Peoria, Hanna City & Western	230,000	1927
Ventura County.....	300,000	1927
Westfield.....	230,000	1927
Eastland, Wichita Falls & Gulf	600,000	1927
Modesto & Empire Traction....	20,000	1927
Schoharie Valley.....	122,000	1927

Continued on next left-hand page

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Chicago

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Canadian Waugh Equipment Company, Montreal

LESS FUEL • • LESS SMOKE • • LESS STEAM FAILURES • • LESS PLUGGING OF FLUES • • LESS ASH PAN MAINTENANCE
• • LESS INVENTORIES FOR MAINTENANCE • • LESS TIME REQUIRED TO CLEAN AND DUMP FIRES.

Railway Officers

EXECUTIVE

Charles S. Baxter, assistant general freight agent on the Mobile & Gulf, has been elected vice-president (traffic), with headquarters as before at Louisville, Ky., succeeding **J. A. James**.

George J. Ray, chief engineer of the Delaware, Lackawanna & Western, with headquarters at Hoboken, N. J., has been appointed vice-president and general manager, with headquarters in New York, succeeding **E. M. Rine** retired.

G. H. Bussing, general superintendent of the Chihuahua and Mountain divisions of the Kansas City, Mexico & Orient and of the Mexico North-Western, has been appointed assistant to the president of the latter company, with headquarters as before at Ciudad Juarez, Chih.

C. D. Mackay, assistant to vice-president of the Southern, with headquarters at Washington, D. C., has been promoted to the position of assistant vice-president, with the same headquarters, and the positions of assistants to vice-president (personnel) have been abolished.

Following the appointment of trustees for the Chicago, Rock Island & Pacific, the positions of vice-president have been abolished and the following appointments have been made: **M. L. Bell**, vice-president and general counsel, as general counsel; **Carl Nyquist**, vice-president, secretary and treasurer, as secretary and treasurer; **L. C. Fritch**, vice-president (operation), as operating officer; **A. Mackenzie**, vice-president and freight traffic manager, as freight traffic manager; **L. M. Allen**, vice-president and passenger traffic manager, as passenger traffic manager; **F. D. Reed**, vice-president and general purchasing agent, as purchasing agent; **W. H. Burns**, vice-president and general auditor, as general auditor; **H. G. Clark**, vice-president, as executive assistant to trustees; and **F. E. Walsh**, assistant to president, as assistant to trustees. All these officers have their headquarters at Chicago.

Edwin M. Rine, vice-president and general manager of the Delaware, Lackawanna & Western, who will retire from active service at the close of the year, as reported in the *Railway Age* of December 9, was born on September 4, 1867. He entered railway service in 1886 as telegraph operator for the Pennsylvania, subsequently serving in the same position on the Pittsburgh & Western (now a part of the B. & O.) at Allegheny, Pa. From 1889 until 1890, he served as train dispatcher for the same road, then serving consecutively for short periods in the same position on the South Carolina R. R. (now part of the Southern) at Charleston, S. C., and on the Cleveland Terminal & Valley R. R. (part of the B. & O.), at Cleveland, Ohio. From 1892 to 1895, Mr. Rine was chief dispatcher of the latter road,

and from 1894 until October, 1899, he was also chief dispatcher of the Akron division of the Baltimore & Ohio. From 1895 to October, 1899, he also served as trainmaster of the same division of the latter road and as chief dispatcher for the Cleveland Terminal & Valley. Mr. Rine entered the service of the Lackawanna in October, 1899, as train dispatcher at Scranton, Pa., and in December of that year he was promoted to the position of trainmaster. From August



Edwin M. Rine

until December, 1900, he was acting division superintendent for the same road and on the latter date he was appointed superintendent of the Scranton division. In 1908 he was appointed superintendent of the Morris & Essex division and in 1910 he became assistant general superintendent. He was promoted to the position of general superintendent in January, 1912. Mr. Rine was appointed vice-president and general manager of the Lackawanna in March, 1917, and has served in that position continuously since that time.

FINANCIAL, LEGAL AND ACCOUNTING

R. S. Shapard, assistant general attorney on the Texas & Pacific, has been promoted to general solicitor, with headquarters as before at Dallas, Tex., to succeed **Thomas J. Freeman**, deceased. **T. D. Gresham**, general attorney, has been appointed general counsel, with headquarters also at Dallas.

OPERATING

H. C. Aguilar, roadmaster on the Kansas City, Mexico & Orient of Mexico, with headquarters at Ciudad Juarez, Chih., has been promoted to superintendent of the Chihuahua and Mountain divisions, with the same headquarters, succeeding **G. H. Bussing**, general superintendent, whose appointment as assistant to the president of the Mexico North-Western is noted elsewhere in these columns.

E. E. McDaniels, assistant trainmaster on the St. Louis division of the Pennsylvania, with headquarters at East St. Louis,

Ill., has been promoted to trainmaster of the Indianapolis division, with headquarters at Indianapolis, Ind., to succeed **F. H. Wisegarver**, who has been transferred to the Ft. Wayne division, at Ft. Wayne, Ind. **Berkeley Ward, Jr.**, yardmaster at Detroit, Mich., has been promoted to assistant trainmaster at East St. Louis, to succeed Mr. McDaniels.

TRAFFIC

H. E. Mack, Jr., has been appointed assistant manager of mail and express traffic of the Missouri Pacific, with headquarters at St. Louis, Mo.

E. M. Vernon, assistant general agent for the St. Louis Southwestern at Amarillo, Tex., has been promoted to the newly-created position of general agent with the same headquarters.

Thomas C. Andrews, general agent for the Chicago, Attica & Southern, with headquarters at Tulsa, Okla., has been appointed to the newly created position of general southwestern agent with the same headquarters.

C. E. Burnett, freight and passenger agent for the Chicago, Rock Island & Pacific at Portland, Ore., has been appointed to the newly created position of general agent with the same headquarters. **R. N. Gordon**, traveling freight and passenger agent, has been promoted to general agent with headquarters as before at Seattle, Wash.

J. E. Corfield, general agent for the Toledo, Peoria & Western, with headquarters at Pittsburgh, Pa., has been promoted to general freight agent (solicitation), with headquarters at Peoria, Ill., succeeding **George G. Orme**, who has been appointed general eastern agent at New York. **J. C. Franz**, has been appointed general agent at Pittsburgh to succeed Mr. Corfield.

OBITUARY

John Ashby Taylor, former controller of the Central Railroad of New Jersey, died suddenly on December 12 at Langhorne, Pa. Mr. Taylor retired from active service in 1929.

John D. Marney, who retired in 1931 as assistant freight traffic manager of the Baltimore & Ohio, at St. Louis, Mo., died on November 6, while enroute by steamer from Los Angeles, Cal., to New York. Mr. Marney was born on March 16, 1866, at Vincennes, Ind., and entered railway service in October, 1887, with the Ohio & Mississippi (now part of the Baltimore & Ohio), serving as a clerk and stenographer in the local office at Vincennes until 1896. In that year he was appointed division freight agent on the B. & O. at Springfield, Ill., being transferred to Louisville, Ky., in 1916. In March, 1920, Mr. Marney was promoted to assistant general freight agent at Louisville, and in July, 1924, he was further advanced to assistant freight traffic manager at St. Louis, holding this position until his retirement in 1931.